Organic Coffee for a sustainable development in Peru

A qualitative study on how Peruvian coffee farmers’ development is affected by choosing organic cultivation and certification

Author:
Klas Marcus Brink
1987-05-10
Acknowledgements

Without the help and support from various organizations, institutions and persons that have participated in interviews, shared knowledge and provided funding for the costs of the research it would not had been possible to accomplish a comparable result. Many thanks to everybody that has been taking part of and participated in the study in any means!

Many thanks to the Swedish International Development Agency (SIDA) for providing funds for the study and making it possible to conduct a field study in another country to gather empirical data.

Without the directions, support and patience given from my tutors Birgitta Schwartz and Liz Quispe Santos this thesis could not possess the same qualities as it does today.

Mälardalen University and the university ESAN have provided invaluable support and contact information to get in touch with important persons and hands on information regarding the subject.

The ”Central de Café y Cacao de Perú” and its member cooperatives has been one of the most important sources for getting primary data on the subject as well as secondary data.

Another person that has been of great importance for this study is Dr. Jose Ramirez Maldonado that also had earlier experiences from guiding students while writing their thesis. Dr. Ramirez could give some good recommendations at place in Peru for this particular field study.

Also many thanks to:

Dionila Camacho Carrión and David Ore Gonzales
Cesar Romero
Hans Brack Frantzen
Geni Fundes Buleje
David Fundes Buleje
Leonardo Adachi
Renzo Vega
Aldo (Coop. Perené)
Justo Maguña Ortiz (Mr. Tito)
Cooperativa CUNAVIR
Cooperativa Perené
Cooperativa agraria catefalera Satipo
Cooperativa cunavasi Villa Rica
Ministerio de agricultura de Villa Rica
Chanchamayo Highland Coffee
Cooperativa Pichanaki
Tributaria de Pichanaki
ADEX (Asociación de exportadores)
Biolatina
Cooperativa Sol & Café

And all coffee farmers, agro engineers, NGO’s and municipalities from San Juan, Peña Blanca, Santa Maria de Toterani, Villa Rica, Eneñas, Valle Hermoso, San Ramon, Satipo, Pichanaki, Mazamari, La Merced etc. that have participated in interviews and provided priceless information for this thesis.

Last but absolutely not least and what really made the difference and gave me the possibility to make this field study in Peru were my dear girlfriend Maria Alejandra Ramirez and her family. They not only helped with a lot of information and contacts but most important a home to return to and a lot of love, motivation and support.

Many thanks!

Sincerely

Marcus Brink

Västerås 10 April 2013
Agradecimientos

Sin la ayuda y el apoyo de varias organizaciones, instituciones y personas que han colaborado en las entrevistas compartiendo conocimientos y financiando los costos de este estudio no hubiera sido posible alcanzar los resultados comparables obtenidos. Muchas gracias a todos que han participado de alguna manera.

Muchas gracias a la Agencia Sueca de Desarrollo Internacional (ASDI) por proveer el financiamiento para el estudio y haciendo posible la realización de un estudio de campo en otro país para conseguir la información empírica.

Sin las instrucciones, el apoyo y la paciencia de mis supervisoras Birgitta Schwartz and Liz Quispe Santos esta tesis no hubiera tenido las mismas calidades como las obtenidas.

La universidad de Mälardalen y la universidad ESAN han apoyado con información invaluable como los contactos y recomendaciones para encontrar personas claves e información relevante para el proyecto.

La Central de Café y Cacao de Perú y sus cooperativas asociados han sido uns de las fuentes mas importantes para encontrar datos primarios y secundarios sobre la tema.

Otro persona que también ha sido de gran importancia por el estudio es Dr. Jose Ramirez Maldonado quien también tiene experiencia en supervisar estudios y a estudiantes que realizan su tesis. Mientras que en Perú, el Dr. Ramirez brindo buenos recomendaciones y orientación para la realización de este estudio de campo en particular.

También muchas gracias a:

Dionila Camacho Carrión and David Ore Gonzales
Cesar Romero
Hans Brack Frantzen
Geni Fundes Buleje
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Y a todos los agricultores, agro ingenieros, ONG's y municipalidades de San Juan, Peña Blanca, Santa María de Toterani, Villa Rica, Eneñas, Valle Hermoso, San Ramon, Satipo, Pichanaki, Mazamari, La Merced etc. Ellos han participado en entrevistas y aportado información inapreciable para la tesis y las respuestas de las preguntas de investigación.

Por último pero no menos importante que realmente hizo la diferencia y dio la oportunidad para realizar este estudio de campo en Peru mi querida novia Maria Alejandra Ramirez y su familia. No solo me han ayudado con mucho información y contactos sino lo mas importante una casa con una familia donde regresar, con mucho amor, motivación y apoyo.

Muchas Gracias!

Sinceramente

Marcus Brink

Västerås 10 Abril 2013
Abstract

Title: Organic Coffee for a sustainable development in Peru - 
A qualitative study on how Peruvian coffee farmers’ development is affected by choosing organic cultivation and certification

Seminar date: 2013-05-31
University: Mälardalen University Västerås
Institution: School of Business, Society and Engineering
Level: Bachelor Thesis in Business Administration
Course name: Bachelor Thesis in Business Administration, FÖA 300, 15 ECTS
Author: Marcus Brink 1987-05-10
Tutors: Birgitta Schwartz
Examiner: Peter Dobers
Pages: 145
Attachments: List of interviews, Interview questions to coffee farmers
Key words: Sustainable development, organic, coffee, certifications, coffee farmers, small scale farmers, Peru, bachelor, conventional coffee, organic certification, profitability, environment, social entrepreneurship, context, coffee producers

Research question:
In what way are small-scale coffee farmers in the region of Junín, Peru, able to benefit from “Organic” certifications or conventional coffee cultivation to develop sustainable?

Purpose:
The purpose of this field study was to get an understanding of how and if organic farming is an adequate solution for sustainable development of small-scale coffee farmers in developing countries or not.

Method:
This bachelor thesis was done as a field study financed by the Swedish International Development Agency (Sida) under the program of Minor Field Studies provided by the International Programme Office for Education and Training. For the field study a qualitative method has been used to better submit how the people involved understand and interpret their surrounding reality and to get a deep insight in their lives. The nature of the research question and the test subjects provided for a qualitative method rather than a quantitative. Qualitative measuring methods used for primary data gathering were, in-depth interviews, observations, participations, spontaneous conversations, videos and photographs. Secondary sources used include literature, news magazines, public documents, and statistical data provided by organizations, institutions, webpages, and libraries through both Internet and physical form. The theoretical framework that lays a ground for the study has been based upon scholarly journals, scientific studies, scientific articles and other relevant existing research. The data that was gathered were later analyzed by qualitative methods.
**Conclusion:**
Small-scale coffee farmers in developing countries are able to benefit from organic certification but it cannot be considered a sustainable development. There’s too little emphasis on the social and economical aspects and too much focus on the environmental factors by the organic certification to make it interesting to many farmers. For a small-scale coffee farmer to benefit from the organic certifications he need to have a very low intense cultivation from the beginning, before becoming certified. The organic certification incurs increased costs for the farmer and is more labor intense while it at the same time provides limited productivity ability and only gives a slightly better price to the farmer for his product. Farmers that grows conventional coffee and have a somewhat managed plantation will not benefit from certifying organic as it would give them the same income or less. The organic growing procedure also prohibits the use of important pesticides as insecticides and herbicides that makes organic farmers further susceptible and sensible for diseases and plagues on their crop. The numerous facts that make organic growing low productive labor intense makes it more motivating for many farmers to chose conventional coffee cultivation instead of organic and working with certification.
Resumen

**Titulo:** Café Orgánico para un desarrollo sostenible en el Perú – Un estudio cualitativo sobre como el desarrollo de los agricultores peruanos de café es afectado por elegir trabajar con café orgánico y certificaciones

**Fecha de examen:** 2013-05-31  
**Universidad:** Universidad de Mälardalen  
**Facultad:** Facultad de Negocios, Sociedad e Ingeniería  
**Nivel:** Tesis de licenciatura en Administración de Empresas  
**Nombre de curso:** Tesis de licenciatura en Administración de Empresas, FÖA 300, 15 ECTS  
**Autor:** Marcus Brink 1987-05-10  
**Tutor:** Birgitta Schwartz  
**Examinador:** Peter Dobers  
**Paginas:** 145  
**Adjuntos:** Lista de las entrevistas, Preguntas de entrevista para agricultores de café  
**Palabras clave:** Desarrollo sostenible, orgánico, café, certificaciones, agricultores de café, agricultores de pequeña escala, Perú, bachiller, café convencional, certificación orgánica, rentabilidad, medio ambiente, empresariado social, contexto, productores de café.

**Pregunta de investigación:**  
¿De que manera se pueden beneficiar los productores de café en la región Junín, Perú, con las certificaciones orgánicos o con los cultivo de café convencional para desarrollarse de una manera sostenible?

**Propósito:**  
El propósito de este estudio fue obtener conocimientos sobre si es y como la agricultura orgánica es una solución adecuada para desarrollo sostenible de pequeños agricultores de café en países de desarrollo o no.

**Método:**  
Esta tesis de licenciatura se realizó como un estudio de campo financiado por la Agencia Sueca de Desarrollo Internacional (ASDI) bajo el programa de “estudio de campo de menor envergadura” proveído por la Oficina del Programa Internacional de Educación y Formación. Para el estudio de campo un método cualitativo ha sido usado para de una mejor manera presentar como la gente involucrada entiende y interpreta su realidad circundante y para obtener una visión profunda de sus vidas. La naturaleza de la pregunta de investigación y los sujetos dio razones e hizo relevante usar un método cualitativo en vez que un cuantitativo. Métodos cualitativos usados para coleccionar datos primarios eran entrevistas en profundidad, observaciones, participaciones, conversaciones espontáneas, vídeos y fotografías. Las fuentes secundarias utilizadas
incluyen literatura, revistas de actualidad, documentos públicos y datos estadísticos de empresas, instituciones, paginas web y bibliotecas a través de internet y de la forma física. El marco teórico que establece una base para el estudio se ha basado en revistas especializadas, estudios científicos, artículos científicos y otras investigaciones de interés al respecto. Después los datos coleccionados han ido analizados con métodos cualitativos.

**Conclusión:**
Los agricultores pequeños de café en países en desarrollo pueden beneficiar de la certificación orgánica, pero no se le puede considerar un desarrollo sostenible. Hay poco énfasis en los aspectos sociales y económicos en comparación con los factores ambientales en la certificación orgánica que desmotiva a los agricultores a adaptarlo. Para que un pequeño agricultor se beneficie de la certificación tiene que ser un agricultor con muy baja productividad y falta de manejo adecuado antes de volverse certificado. La certificación orgánica aumenta los gastos o costos para el agricultor, parte de esto por el incrementado de la mano de obra y la capacidad de productividad limitada mientras el café orgánico solo recibe un precio que es un poco mejor que la del café convencional. Agricultores convencionales que tienen una chacra un poco o bien manejado no van a beneficiarse al volverse certificados orgánicos porque les daría el mismo ingreso o menos. El manejo orgánico de café también prohíbe diferentes pesticidas como herbicidas y insecticidas que hacen a los agricultores orgánicos mas susceptibles y vulnerables de enfermedades y plagas en sus cultivos. Los numerosos hechos que hacen que el cultivo orgánico tenga baja productividad y necesita mano de obra intensa y pesada motiva a muchos agricultores a escoger cultivar café convencional en lugar de trabajar con la certificación orgánica.
Definitions

Bags – As an international measure of consumption and production 1 bag = 60 kg

CSR – Corporate Social Responsibility

DEA – Drug Enforcement Administration

Fumigate – Method of pest control using gaseous pesticides

GDP – Gross Domestic Product

GMO – Genetically Modified Organism

Ha – Hectare = 10,000 m²

ICA – International coffee agreement

ICO – International Coffee Organization

IFOAM – International Federation of Organic Agriculture Movements

ISEW – Index of Sustainable Economic Welfare

MAMSL – Meters above mean sea level

PEN – Peruvian Nuevo Sol (Peruvian currency)

QQ – Peruvian pound based quintal (1 quintal = 46 kg ≈ 100 lb)

SD – Sustainable Development

SIDA – Swedish international development agency

SLU – the Swedish University of Agricultural Sciences

UN – United Nations
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1 Introduction

Coffee is one of the world’s most popular beverages and its popularity has made the coffee bean the second most heavily traded commodity on the global market after petrol. In the world there are around 25 million farmers and workers involved in producing coffee in 50 different countries around the world (Jeffrey, www.globalexchange.org, 2003, 7 Feb). The largest coffee producer in the world today is Brazil with a total production of more than 50 million 60 kg bags of coffee in 2012, that’s more than 3 million tonnes. Brazil answer for more than a third of the worlds coffee production of about 145 million bags in 2012 and produces more than the double amount that the worlds second largest producer, Vietnam that produced 22 million bags 2012 (International coffee organization, www.ico.org 2013, April). The majority of coffee on the market is produced by people living in poverty as a result of the current global economy that exploits cheap labor and keep prices low for consumers. The global commodity chain for coffee is long and consist of producers, middlemen, exporters, importers, roasters and retailers, which make the producer totally disconnected from the end product, the cup of coffee you enjoy at your break (www.equalexchange.coop, 2012, 4 Oct).

As followed by the problem of unethically produced coffee by poor farmers the demand has increased for certified coffees such as Fair Trade, Rainforest Alliance and Organic. The different existing certifications and stamps guarantees better conditions for farmers and promote a sustainable development of the coffee industry. The certified coffee market is still seen as a niche market but is rapidly moving to the mainstream. Certified coffees represented 8% of the global coffee trade in 2009 but the fast growth of the segment gives estimates of certified coffees representing 20%-25% of the global market in 2015 (International Trade Center, www.intracen.org, 2011, 10 March).

Certified coffee is merchandised at a premium price to benefit the coffee farmers and, or the environment. These coffees with some kind of certification are many times referred to as "sustainable coffees" from its objectives to make for a better and sustainable future for the producers in the industry. With sustainable coffee is meant that the production chain the coffee passes through need to comply with certain norms and requisites. Sustainable coffee certifications usually require better working conditions for farmers, protection of the environment by organic cultivation and a responsible handling and treatment of the product through a clean processing. Many times the certified coffees are not only accompanied by a higher price but also a better quality. (International Trade Center, www.intracen.org, 2011, 10 March).

It’s important to remember that when you buy cheap coffee it’s not always cheap because it has been less expensive to grow, it may be someone else that pays the
difference in price! Either the coffee farmer earns a very low compensation for his work or the environment pays by taking damage since nobody takes responsibility for the external costs of production like wastewater or other emissions.

Different certifications committed to benefit producers in developing countries have different rules and requirements for becoming a licensee and different strategies to reach their goals. Fair Trade is a classic one and perhaps the most famous, it guarantees producer organizations a minimum price for their goods and financial support before harvest, the difference is proposed for investments in community projects. Another big organization working for sustainability is Rainforest Alliance who promotes production systems that favor wildlife and biodiversity plus social standards like occupational safety, healthcare and education. Similar to Rainforest Alliance the Utz certification guarantees that certain conditions are fulfilled in the production that favors the environment and sets social standards. (International Trade Center, www.intracen.org, 2011, 10 March).

The most common and oldest example of sustainable production in the agriculture sector are the organic standards that also are the only standards that has been codified into law in many countries. Organic standards are different depending on the country or organization that issues the certification and to which region it applies but have in common to exclude the majority of chemical fertilizers and pesticides. Farmers are after a control period sometimes up to three years able to become certified organic and sell organic coffee for a higher price than normal conventional coffee. The European union, US and Japan has their own official stamps and labels for marking organic products on their markets. Which means for example that if a product is to be marketed as and bear stamp for organically produced inside EU it needs to comply with the regulations for organically produced goods traded in the EU. (International Trade Center, www.intracen.org, 2011, 10 March).

Among the different certifications and standards there are also standards and controls regarding production made by corporations such as Starbucks CSR (corporate social responsibility) project called C.A.F.E. practices. Starbucks CSR project stands for Coffee and Farmer Equity Practices and ensure certain practices are used in production to guarantee ethically sourced coffee in their coffee shops (www.starbucks.com, 2012, 16 Sep). The precedent mentioned sustainability certifications are only the most prevalent and there are many other certifications on the market. The question is if one is better than the other and the expected answer should be that it depends from which point of view we see it.

1.1 Background
Much criticism has already been given to the many certifications that are out there. Lindsey (2004) means that the coffee schemes and certifications ignore the textbook
model of frictionless efficiency and that the adjustment of supply and demand leads to long lags and over shooting. The causes of the low coffee prices are improved productivity and falling costs on both the supply and demand side. Increased production by low-cost suppliers in Brazil and Vietnam is another particular cause of the low price. (Lindsey, 2004).

Lindsey (2004) explains how lifting the prices over market levels wont help and will certainly end in failure. The low price should indicate to high-cost producers for example in Central America to supply a product with better quality or exit the market (Lindsey, 2004).

The largest actors on the market for certified organic coffee today are Honduras, Mexico and Peru (International Trade Center, www.intracen.org, 2011, 10 March). As one of the largest producers of certified coffee in the world Peru is recently putting it’s identity on the market as a producer of organic shade grown high quality coffee (www.equalexchange.coop, 2012, 4 Oct). Peru is specifically in organically grown coffee the biggest producer in the world (Fundes, 2012). In Peru “organic” is very often certified together with Fair Trade, making the country the leading world exporter of Fair Trade coffee as well, exporting 26 300 tonnes or around 438 000 bags of 60kg each of Fair Trade coffee in 2009/10. The second biggest Fair Trade exporter the same year was Colombia with 11 000 tonnes, less than half the amount of Peru. Peru is responsible for 25% of Fair Trade coffee exports and has 19% of all certified producer organizations in the world (www.fairtrade.org.uk, 2012, May).

The fact that Peru holds a lot of certificated farmers makes it an interesting test subject for studies regarding sustainable coffee and different certifications. Peru has in latest years had a significant development of their coffee industry and their volumes have almost duplicated from the start of the millennium until 2012 (Fundes, 2012). The country is undergoing big changes and has also been prospering from a steady economic growth latest years. Peru had the highest gross domestic product (GDP) growth rate in Latin America in the decade from 2001 to 2011 with an average rate of around 5.75 percent (Tegel, S. www.globalpost.com, 2012, 20 Feb).

The majority of coffee in Peru is still produced by marginalized indigenous communities with a very underdeveloped infrastructure and unorganized trading system. The lack of social support and isolation from the surrounding world makes it hard to progress. To get more bargaining power many farmers work together in cooperatives where they collect their coffee together to get more market power. A cooperative certifies coffees and teaches how to produce coffee in a sustainable way that according to them nurtures development and protects the environment (www.equalexchange.coop, 2012-09-10). Different cooperatives are connected to and work together with many different certifications to earn price premiums but most common is the organic International Trade Center, www.intracen.org, 2011, 10 March).
1.2 Problem discussion

As the global detriment of the environment is an actual concern of the whole world and concerns of poverty increases the consumption of certified sustainable products has become more common and popular among consumers. The question is if these stamps for certifications and standards that we see in the stores are actually some type of aid and if they make a difference. Or are they just another attempt of marketing products to the concerned consumers and public of today?

How do a small-scale coffee farmer find a way to profit in this jungle of schemes, certifications and new quality standards? What benefits do they gain?

The problem discussed in this project is how growing organic coffee benefit and help farmers in the modern coffee market characterized by unstable prices that fluctuate violently and unpredictable changes in demand and supply.

This study focuses on how the coffee farmers of Peru experience that they benefit from organic certifications and standards and aims to get the farmers own opinions. To get some relevant and significant information on the subject the study was made as a 12 weeks field study on place in Peru. This allowed coming really close to the farmers and to really get an insight in their lives and hear their own stories about the organic standards that evidently are very common in the country. The thesis was made according to the “Minor Field Study” (MFS) program offered by the international programme office in Sweden and financed by the Swedish International Development Agency (SIDA). The great opportunity to be in the field and get hands on invaluable primary information and deep knowledge from interviews has shed light on the topic from a new point of view, the farmers.

Organic coffee follows standards with intentions to save the wildlife and care for the environment by using organic practices without chemical pesticides or fertilizers. Instead organic materials are used as nutrients for the coffee and organic pesticides are used to keep diseases and pests away. Organic farming should also use minimal irrigation and strict control of runoff erosion and organic labels also focuses on health issues besides environmental concerns. (Román, 2009).

The organically certified coffee farmers gets a higher price for selling organic coffee but at the same time the organic farming has less yield and is more subject to diseases (Valkila, 2009). Tallroth (2010) also means that that low productive traditional and organic methods motivates farmers to clear more rainforest to get space for new plantations as productivity per hectare falls. Therefore the environment still would be negatively affected (Tallroth, 2010). What about the social aspect? Does organic coffee help the farmers to better living conditions? Is the price premium for organic enough for the farmer to cover their costs now when using low productivity methods?
1.3 Purpose
The purpose of this field study was to get an understanding of how and if organic farming is an adequate solution for sustainable development of small-scale coffee farmers in developing countries or not.

1.4 Research Question
The research will aim at responding to the following questions:

• How do the farmers in the region perceive “organic standards” and, how do the standards and requirements relate to the farmers own needs?

• Which are the positive and negative outcomes from organic coffee cultivation when managed in the context of Peruvian coffee farmers in the region of Junín, Peru?

• In what way can small-scale coffee farmers in the region of Junín, Peru, benefit from organic coffee cultivation backed by certifications versus conventional coffee cultivation?

1.5 Delimitations
The study was limited to focus on coffee cultivation in the Junín region in Peru and how the institutions, companies, farmers and their organizations and cooperatives in that area experienced benefits from organic certifications. The study was made to focus on the Junín region since it is the region with the largest cultivated area in Peru, Junín stands for 25% of the total area of coffee cultivation in Peru (Fundes, 2012). The difficulties and time it would take to investigate the benefits of various specific certifications also made the thesis to emphasize on Organic Standards specifically. A few interviews were conducted in the capital Lima with organizations, companies and institutions that were of interest regarding organic coffee in Peru but the vast majority of interviews took place in Junín. Interviews were made exclusively in Peru as the study intends to form knowledge of the first stages in the value chain of coffee and about farmers that produce the raw material that is later processed in industrialized countries. The limitations will provide more interesting answers and implications on the specific area and context i.e. small-scale coffee farmers in Junín, Peru and about certified organic coffee. Still after trying to narrow the scope of the research the study ended up out very large and time consuming for being a bachelor thesis that normally should not be as extensive. Further limitations were made because of areas could not be reached or were too dangerous to visit because of terrorism or bad infrastructure, making it impossible to interview some of the farmers in some areas of Junín.
1.6 Chapter Overview

**Introduction:** Introduces the thesis and gives a brief background to the study area followed by a problem discussion, research questions, purpose and a chapter overview.

**Theoretical framework:** Presents, theories and scientific studies that are done in the field or are relevant for this study, knowledge that are results of earlier research.

**Methodology:** Describes the chosen method and techniques used for the study and collection of data. Further explains and discusses why certain methods were chosen and which others exists.

**The coffee market and Peru:** Presents entities that have participated in the study and the environment and context that the research was conducted in. Also includes part of the theories the thesis is based on that were related to coffee.

**Organic Coffee farming in Junin, Peru – The voice of the coffee farmers:** Empirical data gathered from primary sources on the field, results of interviews, observations and meetings with farmers among others in the coffee business.

**Analysis:** Analyzing the primary and secondary data to answer the research questions of the project.

**Conclusion and discussion:** Answer to the purpose and try to provide relevant recommendations and solutions for the coffee farmers.

**Recommendations:** Some recommendations provided for future research.

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**Figure 1** Chapter Overview. (Source: Own work, 2013)
2 Theoretical Framework

This chapter explains conclusions drawn from earlier research and knowledge obtained by reading scientific articles and other literature related to the study area and purpose of the thesis.

2.1 Sustainable Development

Deterioration of the human environment and natural resources and its effects upon the economic and social development has made sustainable development (SD) a central guideline for the United Nations and other international organizations (42/187 Report of the World Commission on Environment and Development). SD has got numerous different definitions through the years but one seems prominent. According to UNs definition, SD can be described as: meeting the needs of the present without compromising the ability of future generations to meet their own needs (42/187 Report of the World Commission on Environment and Development). Byrch, Kearins, Milne and Morgan (2009) showed in a study that there’s no common understanding amongst the business community and sustainability advisors of what SD really means. Byrch et al. (2009) further points out that there’s a reason to be concerned of the widespread opinions that leave the definition very unclear, making the distinction of SD from business-as-usual disappear.

Companies that want to seem sustainable easily greenwash unsustainable products and practices through complying with their own definition. As the concept “SD” becomes meaningless firms that do some real efforts to operate in conformity with SD looses their niche advantage (Byrch et al. 2009). In their study Byrch et al. (2009) also report that the meanings of SD generally are derived from individuals’ everyday life, which could be a reason for the great span of different understandings and definitions of the concept. Byrch et al. (2009) suggests more knowledge on the topic will strengthen the SD movement and protect it from fraudulent claims of businesses that mention themselves as sustainable.

Farrell and Hart (1998) also explains that there is no agreement on a precise meaning of sustainability but that two general views can be presented, which many times seem to be in conflict with each other. The first concept called critical limits focuses on the natural assets such as healthy wetlands, fertile soil and the ozone layer that are necessary for humans to live and irreplaceable by humans so far. The second conception, the competing objectives view of sustainability focuses on the balance between economic, social and ecological goals. Farrel and Hart (1998) however concludes, whatever the definition, sustainability is important and indicators to measure the progress in SD are needed. (Farrel & Hart, 1998).

Docherty (2009) explain that the interconnectedness and balance between economic, social and ecological factors was recognized already in 1987 by the Brundtland
Commission and has been named “Triple Bottom Line” (TBL). The concept TBL was made by the economist John Elkington that claimed that for a system to be sustainable the social, economic and environmental resources should be able to develop and grow. The company is not only responsible for it’s shareholders but also other stakeholders that are influenced and affected by the operations of the business. The firm has to search to satisfy employees, customers, suppliers, the natural environment and the surrounding economic system and therefore can’t focus only on the single economic bottom line to be successful in the long run. The firm needs to contribute to other stakeholders and measure performance under all three bottom lines. During the past 200 years more evidence has been revealed on how the industries that are economically driven has had profound social and ecological consequences. (Docherty, 2009).

Elkington explained the concept with his own words (1999): “At the heart of the emerging sustainable value creation concept is recognition that for a company to prosper over the long term it must continuously meet society's needs for goods and services without destroying natural and social capital.”

Research on SD shows how over the years a large number of indicators and measurements for SD have been developed by different entities, but with a big variation (Farrel & Hart, 1998; Parris & Kates, 2003). Depending on which view of sustainability they are based on and the underlying interests and goals of their creator the emphasis of indicators has different motivations such as decision making, management and advocacy (Parris & Kates, 2003). Even though over 500 different efforts to develop quantitative measures have been made there’s still no set of indicators that are universally accepted (Farrel & Hart, 1998; Parris & Kates, 2003).

Farrel and Hart (1998) further explain that the priorities of developing versus developed countries concerning objectives to reach economic and environmental goals are very different. Developing countries still focus to improve quality of life through economic growth and materials possession while developed countries start to priorities quality of time spent on different activities and personal wellbeing (Farrel and Hart, 1998). Indicators on sustainability are still not in convergence but regularly the indicators used for measuring are of economic, social and environmental nature. The use of these indicators together is a first step that recognizes that all three areas are of importance if sustainability is to be achieved Farrel and Hart (1998). Parris and Kates (2003) argue that the amount of work on measuring SD is driven by a desire to develop a new universal indicator similar to GDP. Parris and Kates (2003) means that it is unlikely that a measure as alternative to GDP will be developed soon that is backed by the same amount of compelling theory, rigorous data collection and analysis.

Index of Sustainable Economic Welfare (ISEW)
Daly and Cobb (1989) have developed the index of sustainable economic welfare (ISEW), one alternative measure to GDP that even if not accepted as widely as GDP still
make for a good complementary. The ISEW take into account things such as the loss of natural capital, inequalities, and household labor (Castañeda, 1999).

Attempts to measure wellbeing more correctly than GDP has tried to develop more complete indicator sets. Some alternative methods try to measure a large variety of ‘objective’ physical or socio-economic factors or a more subjective psychological aspect of wellbeing. ISEW indicators rather tries to measure the well being in numbers by taking into account factors that regards the impact on wellbeing to complete other conventional measures such as GDP. Daly and Cobb wanted to develop an indicator that could reflect the shortages that GDP included in measuring welfare. They did not only want to account for the loss of natural and human-made capital but also measuring the loss in welfare from unequal income distribution. ISEW also measures the expenditures for defending ourselves from undesirable side effects of production and corrects for social and environmental costs of production. Another additional variable is the welfare gained by the informal economy, which also is measured and part of representing the welfare of the whole nation (Jackson & Marks, 2002).

The GDP and ISEW have been showing a similar development until the 1970s in developed countries in various case studies. ISEW showed how the welfare declined after the 1970s as a response to the increased rate of loss of natural capital that GDP fails to measure (Castañeda, 1999; Jackson & Marks 2002).

The ISEW index measure never became very accessible to ordinary people; therefore Clifford Cobb together with coworkers rebranded the ISEW and instead announced, the Genuine Progress Indicator (GPI). The GPI was basically the same as ISEW but with some new factors but the new measurement was made mainly to have a short acronym and a measure more accessible to the public. New factors left out of the ISEW was adjustments for crime, unemployment, divorce and changes in leisure time. (Jackson & Marks, 2002).

2.2 CSR

todays’ globalization, increased awareness of consumers, and demand from the public that corporations act ethically has brought back the concept of corporate social responsibility (CSR). CSR has existed since the 1980s but has never been as important for corporations as today when the need to adopt ethical policies has increased significantly (Tuan, 2011). Tuan explains that CSR have become more important and also wider in its perspective, the firms not only needs to take responsibility for their own actions but also for those in the whole supply chain. To be successful companies need to take into account the context they operate in and care of and contribute to the global society they are situated in, describes Tuan. CSR many times don’t only take into account the social aspect but also contributes to protect and be responsible for the environment.
Tuan continues that in the absence of the financial ability and most important the morality, many businesses still doesn’t include CSR projects and norms in their operations. According to Tuan firms that still exploit cheap labor markets and act unethically seem to be located in the emerging markets where pollution and bad business practices deteriorate the thrust of local governments and people. Tuan reports that firms adopt CSR strategies not only to comply with laws and regulations but also because many firms see a correlation between social/environmental performance and financial performance. Tuan also found that through CSR strategies firms attract more talented recruits that are searching to work only for a company they know is acting responsible. Further Tuan reports how important it can be with CSR for building loyalty from customers and increase the reputation of the firm. Tuan, L. T. (2011).

2.3 Contextualized social entrepreneurship
Lepoutre and Heene (2006) showed the CSR work by small businesses to be varying with different outcomes depending on different conditions the firm is facing. Lepoutre and Heene reported that many small businesses don’t recognize their social responsibility issues and that this was a more common cause to not participate in small business social responsibility (SBSR) than actual barriers to engage in SBSR. For some small businesses the barrier to act in conformity with SBSR is the lack of financial resources and therefore they will experience more difficulty to be socially responsible than larger firms explains Lepoutre and Heene. Lepoutre and Heene further recommend small firms with less financial resources to take action and act on collective level to contribute with social responsibility.

The context factors have also been of importance whenever a small firm chooses to work with SBSR or not, what seems hard though is to draw a conclusion of a specific pattern that generally is followed (Lepoutre and Heene). In a study on small and medium enterprises (SMEs) in Latin America and Europe regarding their CSR involvement and the context they operate in, it was revealed that Latin American SMEs had a higher percentage of participation in CSR or SBSR compared to European SMEs (Corral, Vives & Isusi, 2005). In the study by Corral et al. it was reported that 39% of SMEs in Latin America did not participate in any external CSR activities and 52% did not have activities to protect the environment. However an even larger percentage, constituting 51% of European firms did not practice external CSR in contrast to the 39% Latin American SMEs (Corral et al.). One explication of the greater commitment to their communities by Latin American firms could be that they operate in another context and environment. Latin American firms may meet more poverty and distress in their surrounding environment where there’s also less support from the government in development and aid compared to Europe according to Corral et al.
In another study Schwartz (2012) explains how not always only bright sides are the result when CSR projects and social responsibility standards as labels are transferred to another context with different norms and values. Schwartz means the Fair Trade idea shows sides of post colonialism even if it is working in favor of the certified entities as it is developed by actors in the west that work to transfer their practices to underdeveloped countries. Unintended consequences that can be negative also emerge at times when the standards and regulations are implemented. (Schwartz, 2012).

Schwartz (2012) describe how the social entrepreneurs that seek to solve social problems tend to try to change the context itself since they believe the problem lies rooted in the contextual factors. The methods and standards implemented for changing to a better situation are often developed in the West and based on a Western context. The wish to change also comes from the West many times and often don’t take into account the consequences when trying to change low-income countries for example explains Schwartz (2012). The different practices between the industrialized world and the third world where most social work is done makes the actions that are needed very different in the underdeveloped countries. Schwartz explain a negative outcome in the transfer of Fair Trade is how the management standards and additional controls is seen by Fair Trade suppliers as necessary extra work as the customers demands such procedures. (Schwartz, 2012).

The demand from west and for example European markets makes suppliers in low-income countries that have customers in West to implement standards. Suppliers follow the logic that the Customer is King and that also are forced to follow the demand to survive need to adapt procedures and improve working conditions and let customers make their own controls and audits. The buyers in west are worried as earlier irregularities related to their suppliers have happened and therefore wants to make their own controls and audits. The choice of working with standards as Fair Trade from suppliers doesn’t seem to be motivated by the wish to take social responsibility but rather to follow the Fair Trade idea developed in the Western society. The suppliers are also from earlier scandals mistrusted by customers that don’t seem to believe suppliers can follow standards. The mistrust makes customers to build their own control systems and invest a lot of resources to increase controls and make regulations. The demand from the customers together with the controls and mistrust are making the standards and western norms and values to occur as postcolonial coercive forces. (Schwartz, 2012).

2.4 Organic coffee production
To follow organic standards and use organic systems is considered a sustainable production system with positive outcomes for the environment (Masuda, 2007). Masuda (2007) showed in a study that higher productivity and higher net returns was related to conventional coffee farming compared to organic farming. The study by Masuda (2007)
was carried out in the only coffee production area located in a developed economy “Hawaii” with a sample of 23 organic and 42 conventional farmers. Masuda tried to compare profitability, efficiency and environmental impacts by organic and conventional coffee farming in her investigation. The study by Masuda shows that both increasing net returns and reducing chemical inputs are important for the total regional welfare. While conventional coffee showed to increase net returns in this case it also have negative effects on the environment, affecting the total welfare in a negative way at the same time (Masuda, 2007). Organic coffee farming is less productive but possibly sometimes contribute with environmental spillovers as positive environmental externalities such as biodiversity enrichment (Masuda, 2007). When looking at the total welfare for the region the study shows that in order to maximize welfare the optimal proportion of farmers would be 25% organic fields and 75% conventional fields (Masuda, 2007). Masuda explains that to obtain this optimization both conventional and organic farmers need to be more efficient and a reduction in use of chemical inputs in the conventional farming is necessary. Masuda reports that mean efficiency of organic farmers are about 57% while conventional farmers only work at around 47% of full efficiency. Masuda also notes that both farming systems in the sample have fully efficient farms operating what suggests that other farmers can increase productivity.

Organic agriculture of coffee have also showed to produce lower net returns to farmers in developing countries where it’s showed that yields rather than price premiums are of importance (Barham & Weber, 2012). Barham and Weber describes how Mexican and Peruvian small-scale producers choosing to work with sustainability certifications like Fair Trade (FT) and organic earn price premiums but that they are not sufficient to increase their living standards. FT and organic coffee certificates are often granted to growers together by cooperatives but the standards rather restrain farmers from increasing their income instead of favoring them (Valkila, 2009). Smallholders i.e. small-scale farmers that are converting from conventional farming to certified generally loses productivity and yield, which is one of the causes that certified growers get poorer or stay poor (Barham & Weber, 2012; Valkila, 2009). Generally certifications are only able to help to raise smallholders’ income when the low-intensity organic farming is replacing a low-intensity conventional or traditional farming (Valkila, 2009). The negative effect of Organic farming on the small-scale farmers' welfare is important to account for as it produces smaller yields than conventional methods (Barham & Weber, 2012; Valkila, 2009). However small-scale farmers often have little technology in their agriculture and no education, which makes them use low-intensity conventional technics, producing small yields, converting to organic can in these cases be favorable (Valkila, 2009). It is possible to produce higher yields with use of modern agricultural technologies than organic growing but many times growers don’t use either method but just grows coffee without managing it much (Barham & Weber, 2012; Valkila, 2009). Yield will vary with amount of management like fertilization and pruning of the plantation, organic production is more labor intense but require smaller costs for fertilizer. A higher yield does not necessarily mean higher net returns since it could just
mean the use of more input that will produce higher costs (Barham & Weber, 2012). Bacon (2005) found a correlation between price and access to certified markets in Nicaragua but an insignificant correlation between altitude and price, this means that certifications do give better price premiums than increased quality in the bean. As mentioned earlier though, the price is not always directly connected to a higher net income. Even though marginalized farmers receive higher prices through certifications they still produce very small amounts of coffee due to their small area of plantation (Valkila, 2009). These farmers remain in poverty despite being certified as they are taught low productive methods instead of high productive methods that could help them yield more.

Adopting organic farming methods like any other change in operations and adoption of new technologies are usually related to spending of time and costs and become a barrier for conventional farmers to change (Masuda, 2007). However it’s discussed that government and society recognize positive externalities related to organic growing and is willing to pay to obtain those benefits (Masuda, 2007). Masuda means that market-based programs such as cost sharing and efforts for improved access to markets could help converting to organic growing and attract more farmers to organic agriculture. In a recent study Bilalis, Efthimiadou, Karkanis and Williams (2010) made interesting discoveries that a combination of organic and inorganic fertilization gave significant results in the cultivation of sweet maize. The study by Bilalis et al. has proven that adding organic fertilization when using inorganic fertilizer enriches the soil quality and increase photosynthesis, yield and sustainability. To add inorganic fertilizer is not allowed as an organic coffee farmer but conventional farmers sometimes find it useful to also use organic fertilizers and less chemical fertilizer, this benefit the welfare of the community as a whole (Masuda, 2007). Tallroth (2010) explain in his book how lower yielding agriculture like traditional methods and organic farming are not suitable for developing countries as increased productivity is needed. Tallroth (2010) means the effects on the environment from organic farming in developing countries are not necessarily very positive. Lower productive methods that farmers are allowed to use force them to clear more rainforest to increase the cultivated area to reach a comparable output (Tallroth, 2010).
3 Method

This chapter gives a description of the chosen methods and techniques that were used for collecting the data and why they were chosen and suitable for this study. Some other existing methods that are available and frequently used are briefly explained and a general description of method in general.

3.1 Introducing different perspectives and methods

Different methods of research are used for different types of research, as they require different technics to gather data and analyze it. Three common different ways of reporting research can be mentioned, the traditional report, the qualitative report and the research overview. The first mentioned uses the quantitative perspective to measure, gather data and processing it and also used to be called the quantitative report. The traditional and qualitative report often emerges from two different main approaches to how the surrounding reality is observed. In the traditional report and quantitative perspective the reality is more or less objective in contrast to the qualitative perspective that looks at the reality mainly from a subjective viewpoint, a more individual and sometimes sociocultural construction. The research overviews purpose is to report what has already been done in the research area, thus summarizing already existing reports and other information sources. The demand for research overviews has increased a lot the latest decade as a result of the extreme growth of available information and knowledge. (Backman, 2008).

What the objective approach of the traditional or qualitative perspective means is that objects, incidents and situations are “out there” and exists independent of humans. Working from a quantitative perspective often implies trying to establish laws and principals of how our surrounding works. Laws are established by making assumptions and theories from what a hypothesis is built or implications made that later is tested in arranged conditions for example in an experiment. The most prevalent purpose in the quantitative studies is to investigate and answer cause and effect relationships or at least trying to find indications of cause and effect. Experiments are made to try to understand the connection of two variables, an independent and a dependent. An example is measuring the correlation between increased taxes on gasoline (independent variable) and the amount of traffic in the city (dependent). The use of measurements and quantifying using mathematics and statistics has made certain methods to be called quantitative. Methods of that kind are for example, experiments, quasi experiments, tests, surveys and questionnaires. It’s important to know that the difference in quantitative methodology and qualitative methodology not necessarily means that only quantitative methods can be used for traditional reports or studies with a quantitative approach that were mentioned. The qualitative methods are not the same as the qualitative perspective. Qualitative methods are also possible used while working from a quantitative perspective, which makes it important to make difference between the different perspectives and methods. (Backman, 2008).
In the qualitative perspective the focus is moved to how the human perceives and interprets his surrounding reality. The individual is incorporated in the environment and is part of a subjective environment. The qualitative perspective questions how the individual interprets and forms his surrounding world. In this perspective, concepts such as the meaning of something, the context and the process are often seen. With meaning means how an individual interprets and structures his surrounding reality according to his earlier experiences and knowledge. The context concept suggests that the individual is studied and observed in “real life” situations and her natural environment rather than in artificial laboratories. Referring to the process is the fact that the qualitative perspective is more directed toward explaining events, situations and processes rather than providing products and results. In the qualitative studies the researcher himself is often seen as an instrument. The researcher that is part of the method himself and comes close to his test subject builds a subject-subject relation and instead of the traditional object-subject relation the relation is now closer and authentic. In the qualitative the research process also differs from the quantitative in the way that instead of starting with theory, research questions and hypothesis building the emphasis is often on starting with empiric knowledge, and gathering data. The qualitative process then later or at the same time formulates concepts in form of hypothesis or theories. The quantitative research processes are in general deductive and hypothesis testing while the qualitative are often inductive and hypothesis generating. The quantitative perspective is many times testing theories while the qualitative build theories. (Backman, 2008)

The qualitative research many times use the method of case studies where a phenomenon is investigated in its real-life context. In a case study the first step is forming a research problem and then choose an analysis unit that will be the object to be examined, for example a person, a group, an organization, an event or situation. Finally a concrete case or various that are going to be studied. The case study is a method that are many times useful in situations where the study objects are very complex, where an attempt to understand or describe a larger entity, a system or an organization is made. A case study is either descriptive or explorative thus either explaining something or actually investigating. (Backman, 2008)

The most common methods in the qualitative perspective are interviews of different kinds, participations in different activities and situations and naturalistic or ethnographic studies as well as documents. In these studies the researcher himself often is part of the method and represents the instrument. There’s a common misinterpretation that qualitative studies are easy to perform but the fact is that observations and interviews demands a lot from the person who conducts them. Therefore there’s sometimes required that a trained person to make observations, read documents and do interviews. Regarding both the quantitative perspective and qualitative the method should be described in such detail that it can be replicated, in
other words another person should be able to conduct the same research by following the described method. (Backman, 2008)

For qualitative studies interviews are especially good at explaining the respondents own feelings, opinions and experience and can be used as the principal method. An interview can be structured or unstructured for different purposes in the gathering of knowledge. The interviews could be in either the form of a questionnaire or subject categories and more structured while they also could consist of details obtained in more informal ways. Depending on the subject studied and the respondents that are going to be interviewed the type of interview should be different and adapted to the situation. (Dalen, 2008; Kvale, 1997)

While choosing interviews and observations as methods and doing qualitative research there are different analytical methods that are suitable for example, grounded theory, hermeneutic and phenomenology. Those are different approaches to interpret and analyze qualitative interviews that can be used depending on the context, nature and purpose of the study. (Dalen, 2008)

### 3.2 Choice of method

The chosen methods for collecting data and give answers to the research questions are in-depth interviews varying from totally unstructured to more structured models, observations, photos and video. In depth interviews are suitable since they are good at explaining the experience felt by the respondent and are also more suited in case of qualitative research while searching for deeper knowledge and while interviewing fewer people (Kvale, 1997). The observations are also a key method to get intrinsic knowledge and better understanding of the participants’ own situation and feelings (Maxwell, 1996). Observations were an obvious choice of method while doing field research with the ability to come close to the subject, the participants and their lives. Recordings of voices, together with videos and photos also simply give excellent extra angles and elements in approaching the problem. To fill the purpose of the study the method was deliberately chosen and adapted. Observations are according to Maxwell (1996) one of the major methods used in data collection and an important method since people tend to do different things than they say they do. To find a fitting method for this thesis consultancy by tutors and other sources was needed as well as some preliminary research on the subject.

The study is further made by a hermeneutic approach method that is suitable because of the context and the complexity of the study where the idea is to see the opinions of coffee farmers and their perspective of the subject. Hermeneutics means the “science of interpretation” and puts emphasis on understanding and interpretation (Dalen, 2008). The idea is to not interpret a statement directly in the way that it's stated but by a deeper meaning. (Dalen, 2008). Hermeneutics also emphasizes that a pre understanding
exists that in this case is established and make hermeneutics a relevant and very useful approach (Gustavsson, 2007; Hellesnes, 1988/1991).

The idea of hermeneutics seemed to fit well for this study as the understanding and interpretation in this case was critical to be able to draw any correct conclusions. It may seem easy and straightforward to do qualitative interviews but when getting into another reality and receiving answers you never though existed it all becomes clear, that how they're interpreted really does matter. A misconception that qualitative studies are easy to perform exists but observations and qualitative interviews demand much from the observer or interviewer (Backman, 2008). In this methods the instrument is made up by the interviewer or observer that need to be aware of many forms of bias that can be present while trying to form a holistic understanding (Backman, 2008).

Hermeneutics suggests that to get a deeper understanding of the message implies that it's put into context and wholeness. The understanding of the wholeness then also depends on the message or the parts of the entire situation, subject or text. In for example a text, the whole text is possibly understood if the different paragraphs it consists of are understood, which in turn can only be understood after one understands the entire message the text want to communicate. This is what's called the hermeneutic circle, which is trying to increase the understanding by looking at the problem as a whole and then on the parts it consists of and again at the whole and so on. A vague and implicit understanding of the interpretandum (the situation, the text, the action or statement) is said to be in the parts and another vague and implicit understanding of the parts are found in the whole message. The hermeneutic interpretation has no starting point or ending point, it develops in the interaction of the whole, the parts, and the researchers pre understanding. (Dalen, 2008; Hellesnes, 1988/1991).

It's also widely agreed in hermeneutics that the pre understanding is the basic condition that let us understand something and that without pre understanding there is nothing that can be understood. Pre understanding can come from earlier experiences and lessons but also just by understanding anything. To gradually get more knowledge of something a pre understanding must exists according to hermeneutics. It may sound meaningless as something totally new would then be impossible to understand, but to only understand that interpretandum is a text and not something else is still pre understanding. (Gustavsson, 2007; Hellesnes, 1988/1991).

The possessed pre understanding of both earlier experiences and research on the studied subject helped begin to gradually increase the knowledge of the answer that was searched for in the study. Pre-understanding of the context helped to start gaining further knowledge in the research process, the nature of the study made it suitable to adapt hermeneutics, as the interviews need deep interpretation to form understanding.
Reflections on the methods that were used after the study was made conclude that the chosen methods were suitable to fit the type of research conducted. First of all what helped to find answers relevant to the thesis purpose and research questions was the approach of doing a field study. At place in field the chosen methods and instruments made it possible to find, record and extract relevant data. The chosen methods later worked to analyze the collected empirical findings and interesting answers from respondents.

3.3 Research Design
The study is a field study conducted as a bachelor thesis in business administration, which means the study has taken place on the field in Peru where the coffee farmers observed in this study live. The project was financed by a grant from Swedish International Development Agency (SIDA) through their program “Minor Field Studies” (MFS), administered together with the Swedish international programme office (www.SIDA.se, 2009, 16 June).

The stipendium from SIDA is aimed to help give students’ a better understanding of current international situations in the world. Criteria for MFS is also that the study contributes in some way to both countries and is conducted in a developing country concerning either its social, economical or environmental development. Two additional objectives are, to inform the institution in the host country with the findings from the study, and also promote contact between students in Sweden and other countries. (www.programkontoret.se, 2013, 4 Feb).

The empirical data gathered is qualitative and has mainly been obtained as earlier mentioned by in-depth interviews with coffee farmers, institutions, cooperatives and private companies. Interview is one of the most common methods in the qualitative perspective and helps to form a closer and more authentic subject-subject relation as the interviewer or observer comes close to the studied subject (Backman, 2008). Other empirical data collected consists of photos, observations, videos, notes and spontaneous recorded conversations with people somehow related to the coffee industry. Interviews can be put together by information gained in more informal ways and complemented with other research material to gather empirical data for the qualitative study (Dalen, 2008). The research and empirical findings may also include some measurements that would be more likely called quantitative like productivity numbers etc. The distinction of qualitative and quantitative methods doesn’t necessarily mean a qualitative approach can’t use qualitative measures and methods (Backman, 2008).

The interviews were either semi-structured or unstructured and adapted depending on the situation, target group and subject as Dalen (2008) mean that they should be. Sometimes a more formal interview with appointment was arranged while many times impulsive recordings of conversations were largely unstructured. Unstructured
interviews aim at getting respondents to talk openly about their experiences and require the interviewer to state spontaneous questions regarding the subject and research questions (Dalen, 2008). To be in field provided for great opportunities to participating observations, for example sometimes it was possible to participate in farmers’ day-to-day activities what gave a deep insight into their lives. Observations could also be done by following the farmer on sightseeing around his lands and in his village to get deep knowledge about the context and the current situation farmers’ encounter. The context, process and meaning are important concepts in trying to understand how the individual interprets and sees his reality in qualitative studies (Backman, 2008). The meaning refers to how individuals feel, interprets and structures the surrounding reality and the context to the fact that humans are studied in “real-life” situations (Backman, 2008). Sequences and events represent the processes that also are characteristics of the qualitative perspective when trying to understand individuals rather than products and results as in the quantitative case (Backman, 2008).

During work and excursions field notes were taken that were used to draw conclusions and improve ongoing and future interviews and fieldwork. New methods and some added topics or reformulated questions could then be used to enhance the understanding and quality of answers. Some preliminary conclusions could be drawn and were put into a reflexive journal with memos that also helped to remember experiences, moments and insights to use in the analysis of the empirical findings. As more information was gathered and new knowledge was gained, the ability to understand respondents increased significantly. The reflexive journal increasingly provided a common understanding from reflections and gathered data. Many things turned out to be very different from expected and it was hard to get oriented before some basic knowledge at place were obtained. Dalen (2008) means that interview statements can be understood by knowledge from memos that the interviewer got from earlier interviews. Interview prints and statements go through a coding and interpretation process and involves that the researcher go through the gathered material systematically to describe what it is about (Dalen, 2008). The memos resulting from the interpretation then form new coding categories and new interpretations that lead to new findings and possible conclusions (Dalen, 2008).

The design of the research is adapted to better understand the farmers’ viewpoint and what they see as problems and benefits. The fact that understanding each other is difficult while cultural differences, different living conditions and value systems are present made the study end up with the resulting design.

3.4 Research procedure in Peru
The study was made as a field study in another context to gain deep insights into the natural behavior and everyday life of the target group what had a great impact on the procedure of conducting the research. Coffee farmers were therefore interviewed in
their natural environment and were not manipulated or taken to a specific test environment. Basically interviews were made at the place that the farmer was found on at the time, sometimes in the coffee plantations or in their house and other times in the city as farmers came down town to make their matters. Institutions wanted appointments most of the times to plan for a meeting and made it necessary to make a phone call a few days before the interview to agree upon place and time. Interviews at organizations and institutions took place at their respective offices.

The procedure to do a Minor Field Study includes going through some necessary formal steps to qualify for the program. First of all the coordinator of MFS at the respective university has to be contacted, in this case Stina-Lena Hellgren, international liaison officer at the division for student affairs of Mälardalen University. The subject and opportunities for this research were presented by a detailed project plan to Ms. Hellgren and was preliminary approved at Mälardalen University. Later after revision by the international programme office and SIDA the project was admitted and granted access to a user profile at the international programme office homepage. The user profile was made for reserving a preparation course with SIDA and later uploading the finished work as well as a story of the trip in Peru. The preparation course by SIDA was arranged after being admitted and before travelling to the study destination to give some training in field studies, security information and information on Swedish and international aid to developing countries. The course was three days long and implied travelling to SIDA partnership Forum course premises in the Swedish city Härnösand. The course, accommodation, travel expenses and food were provided and financed by SIDA to all participants. The course were interesting and gave a lot of useful knowledge but also the opportunity to meet a lot of other people that were undertaking field studies which made the experience even more valuable and entertaining.

After a lot preparation and finally at place in Peru the actual field study could begin. The starting point was in Lima where some necessary meetings and interviews took place to be able to continue to the coffee plantations eight hours from there. A visit to the project supervisor in Peru, Liz Quispe Santos at the university of ESAN gave some preliminary recommendations and support for the research. She helped with many ideas of interesting institutions and organizations that could be visited and provided contact information to some persons in her network with relevant information to the subject. She also offered an opportunity to participate and watch an examination of business plans regarding coffee from Peru by students at university ESAN. The visit to the examination of business plans gave very much valuable knowledge on coffee in Peru and the business plans were also provided in paper form for later reading. Ms. Quispe Santos helped establish the contact with her friends at Central Café y Cacao Perú who later became one of the prominent sources of the project. After an interview with the Central Café y Cacao they helped to get in contact with a cooperative in the region Junín to begin meetings with cooperatives and farmers. Central Café y Cacao also provided the project...
with abundant information on coffee and information explicitly on organic coffee
cultivation by donating one copy of their book “Manual de Café”.

It was hard to get appointments with some companies and institutions in the capital at
the beginning of the study probably because of the approach of Christmas and vacations
and lack of time. Still the necessary meetings in Lima could fortunately be done before
vacations. Luckily since it would almost be impossible to get a meeting with somebody
in Lima during the first weeks after Christmas.

The interviews recorded for empirical data in Lima were with the company BioLatina,
the association of exporters (ADEX) and Central Café y Cacao. Bio Latina is a private
company that certificate different sustainability labels for agriculture products and is
the largest certifier in Latin America with its central office in Lima. Rosi Quiñones Flores
at BioLatina explained their role in the coffee business and about the sustainable coffee
certifications and provided contact information to their certified entities in Peru. The
interview at ADEX with Renzo Vega gave more knowledge on Peruvian coffee exports
and what opportunities and obstacles that they saw in the market. ADEX promotes the
export of several products from Peru and offers services that help companies to start
doing business on the international market.

After finishing interviews in Lima the Christmas was spent in the town Huaraz, high up
in the Andes where another interesting interview was made with the entrepreneur
“Tito” Justo Maguiña Ortiz. Tito has a small company called “ShuQush” that produces and
sell organic roasted ground coffee, he explained his point of view and gave some
interesting knowledge on the situation of the Peruvian coffee market.

After at last feeling ready and with a destination to start of the interviews with farmers
the expedition moved on to the small town La Merced in the region Junín. The route
went from Lima at the coast on to the east and over the Andes to later arrive at the
outskirts of the Amazon rainforest at the east foothill of the mountain ridge. In La
Merced interviews were made with the directive of the coffee cooperative Peréné and
with its associated coffee farmers. I was provided a guide to take me to some coffee
farmers in the beginning as it took everything between one and four hours to get to
where the farms were situated. Private or collective taxis were the main transport
alternative that could be used to get up the mountainsides to places where they
cultivated coffee.

There were often problems in finding the farmers as they were out in the coffee fields
most of the time. Searching for farmers was also very time-consuming as they often live
several kilometers from each other and most of the time gets lost walking around the
mountain. Another problem was getting back to the town at the end of the day, if no
arrangement had been made with someone to pick you up it could be very hard to find
someone to drive back. The very remote places where farmers live are not trafficked at
all and few cars passing during the day. The disability to make appointments with farmers from the lack of ways to communicate in advance made the trips to the farmers very unreliable. There were days when only one interview could be made while others up to four were accomplished.

When the interviews with coffee farmers took place it was still sometimes difficulties in getting the right information. First of all it needs to be taken into consideration the very different lives of the respondents from the interviewer and that it brings problems to the understanding. The study was done as a bachelor in business administration and concepts there within are hard to explain to coffee farmers that are unknown of many of them. The questions had to be stated in a simple way and some words and concepts have to be explained further to get satisfactory answers. The Spanish spoken in the capital is very neutral and has no accent while in other regions as Junín the language gets very different with a strong accent and another vocabulary. Many people from the provinces outside Lima also speak other native languages as their first language and therefore speak little or less Spanish. One word has many meanings and therefore it could be hard to understand what the coffee farmers were trying to say.

Apart from the farmers around La Merced and the cooperative Perené another three cooperatives were interviewed and farmers from several different towns in Junín. One cooperative and a few farmers were also interviewed in the town Villa Rica that’s famous for its denomination of origin of its coffee. Villa Rica however doesn’t belong to Junín but to another region, Pasco. Still the town is on the boarder to Junín and a mayor coffee producer and therefore recommended it. The other two cooperatives that participated in interviews were located in the towns Satipo and Pichanaki, two other mayor coffee producing towns in Junín. Coffee farmers were also interviewed in and around those towns and with about the same difficulties as in La Merced but now as some experience was achieved from earlier mistakes the process of the study was smoother. The cooperatives in Pichanaki, Satipo and Villa Rica and the farmers in those regions could be contacted alone without references from the Central café y cacao.

The contact with the Central café y cacao had been crucial to get the first meetings with farmers though but after becoming more familiar with the situation it could be done alone. By speaking to people in town information about where to find coffee farmers as suitable respondents were found. Informal collective taxis took off to different villages were farmers lived as mentioned earlier but taxis in this context consisted of trucks or pick ups that were transporting farmers and their supplies and products. The trucks did however serve their purpose for me and got me to the farmers and helped get my interviews. Coffee farmers were also occasionally found in the town park sitting and resting or conversing to friends and then after asking kindly an interview could sometimes be done in a much more practical way than when visiting farms. The idea of the study were to interview farmers at their farms to also observe the cultivation and
their living conditions etc. but interviews were also made at every given opportunity with farmers in the town or even on the back of a truck.

The region or department of Junín is located in what is known as the central jungle of Peru that’s part of the amazon rainforest. In Peru they differ from high and low jungle, depending on the altitude, Junín is considered high jungle and has an abundance of waterfalls, rivers and wildlife. The location causes a lot of trouble during the rain season as roads collapse, rivers get flooded and landslides cut of passages and destroy villages. It is sometimes dangerous to travel to the region by land during in the wrong season but unluckily the research was taking place at that time, what also resulted in some obstacles in the research process. Sometimes there was trouble to reach the destination because of hillsides falling down on the road but for most of the times the problems caused by weather were not too big. Rainy days were not suitable to get up the mountains to coffee farms either and had to be dedicated other tasks.

Another fact that also could be problematic for the research and made necessary adaptations to the procedure was that the region in the central jungle is the habitat to a large numbers of coca farmers. Guerilla soldiers protect the coca growers and there are frequent killings in the area of the central jungle related to the coca trade. The presence of these variables made it essential to be careful and could certainly cause problems if travelling to the wrong valley. People sometimes thought it was odd with a foreigner in town and were suspicious as sometimes foreigners have been working for DEA or similar.

Apart from only cooperatives and coffee farmers also some other meetings were done in the central jungle. The company Chanchamayo Highland coffee that makes and exports roasted quality coffee from the region were visited and interviewed. Also some outposts of the agricultural ministry were interviewed and in a store selling fertilizers and gardener tools a conversation was held that also served for information gathering.

During the studies in the field a more or less continuous email contact was established with the tutor for the thesis Birgitta Schwartz, in Sweden. Birgitta gave supervision and instructions during the research process to support and help getting the necessary information back home after the study was done. Information and guidelines was also given during the study time by the supervisor in Peru and Dr. José Ramirez Maldonado, a dean of the agricultural faculty at the national university “Santiago Antúnez de Mayolo”.

After the necessary information was collected in the central jungle of Peru another visit to the supervisors office at university ESAN in Lima and to Central de Café y Cacao was made. They were told about the outcomes and empirical knowledge from the study and thanked for the support and help offered to the project.
After coming back to Sweden all the material that was gathered were put together to form the thesis and seminars were attended to get feedback meanwhile the report presenting the findings were done.

From experience it could be understood that the field study may not be a very straightforward and easy research method but one that are able to give very interesting knowledge and information. While in Peru some people did not show up on the meetings for interviews or was hard to get in contact with, the informality is high and postponing many events made it increasingly difficult staying to the time schedule. Some institutions didn’t want to participate in interviews but the overall impression was still very positive and the majority of the contacted entities seemed interested in participating and gave substantial support to the project. Accordingly to be able to replicate the procedure undertaken to complete this study one needs to first achieve a cultural and linguistic knowledge of Peruvian culture and Peruvian countryside Spanish with accent. To understand what people really mean it was necessary to be able to interpret answers in the right way, that becomes increasingly difficult if the respondents don’t speak clearly and explicitly on the subject. Peruvians are sometimes very unpredictable and many of them mean it’s idiosyncratic for Peruvians to be devious and suspicious (Interview with coffee farmer). However most of the people are very kind and appreciate visitors but as a foreigner it’s necessary to always show respect and be careful to stay out of situations and troubled areas.

3.4.1 Target group

The respondents to the interviews consisted of institutions, organizations and farmers in the coffee industry. A total of 57 meaningful recordings of interviews were made. Farmers were mostly between 30 and 70 years old, many in the upper range of the age interval, mixed gender, women and men, but mostly men. Some were more humble people while others were wealthier and had better living conditions. Farmers interviewed were both conventional and organic farmers, totally 26 different farmers were interviewed. The average total cultivated areal of coffee in Peru is 427 856ha (Manual de café) and Junín answers for 25% of the total areal of cultivated coffee (Manual de café), that is 106 964ha (427 856x0,25=106 964ha ; My calculation). To represent the population a sample of (1/square root of 106 964=327.05 ; My calculation) about 300ha was chosen. Sampling was mostly made randomly but one time the encounter with farmers relied on a guide from a coffee cooperative that showed the way to farmers homes and helped set up a couple of meetings. 5 interviews were made with larger firms, Bio Latina (leading latin American certifier), ADEX, Central de café y cacao, and the ministry of agriculture. 9 interviews were conducted with smaller firms that yet not always were very small but not reaching from small size firms to middle size firms. Among the smaller organizations and firms were different cooperatives as cooperative Cunavir, cooperative Satipo, cooperative Perené and cooperative Pichanaki. Some private firms, Tito (owner, don’t know name of firm), Chanchamayo highland coffee and
3.4.2 Interviews in field – How, where and why

As earlier mentioned the interviews used differ between each other but mostly they consisted of a semi-structured model. The choice of interview type was made considering the fact that it was hard to get reasonable answers from the coffee farmers if the questions were not well explained by someone in a simple way and a more open conversation could be held. For example a questionnaire or survey would be difficult to fill in by the respondents because of their lack of experience from filling in paper forms. The fact that a survey or questionnaire neither would be able to extract satisfactory information to respond the research questions and purpose of the study were also considered while determining the technique to be used. Söderbäck and Schwartz (2010) writes about how during field studies in Mozambique surveying incurred complications as the pupils at the school where research took place had difficulties in answering the questions. Söderbäck and Schwartz (2010) further explains how a lot of support was needed to help the students answering and visual explanations by drawing were of big help to make them understand the questions and how to respond. The surveys were regarding the students’ health and field studies showed that Swedish youth has much more experience of evaluating their health as they are trained to do so (Söderbäck & Schwartz, 2010). Many farmers were also unfamiliar with the subjects and demanded a detailed explanation of the questions and of what information was desired for the study. The circumstances of people with no or very little education that had a hard time to understand and also to write and read was part of the pre understanding from earlier personal experiences, thereby also the adaption of interviews. As some farmers are unable to read the survey or questionnaire were even more useless.

When further explanation of the meaning of a question and different terms and concepts were needed this was made in the most objective manner possible to not influence the answers from respondents. To get the answer on the question and not something else, that was the case many times concepts needed to be explained to the extent how they work and how to interpret them, what made the interviews even more time-consuming. Respondents tended to sometimes give an answer that led to a different subject than what the question searched to explain and therefore I had to explain what I wanted to know. Simple mathematics was also used to explain how to count for costs, revenues and profit but also just to explain how to count and compare the relation of different productivity levels and price levels on coffee.
To get the respondents in the interviews to answer your question and just be willing to participate it sometimes becomes necessary make some effort in explaining the purpose and conditions under which the interview will be conducted. Sometimes the respondent may want to be anonymous and also know what the information he is giving is going to be used for. To get the confidence of the respondent the interviewer can try to get to know the respondent a little bit closer even if it’s hard to establish a relation to someone in a couple of minutes. To be honest with the way research is going to be presented and promise that no names or vulnerable personal information is going to be revealed makes the participants more willing to answer honestly. To speak and tell about something personal from the respondent’s side and be more open many times make the respondent gain more confidence of the respondent. (Häger, 2007).

What helped to build a relation to the respondent and confidence was the fact of being Spanish speaking what made it possible to keep a personal conversation with the respondents. Luckily no translator were necessary to use since it certainly could had alienated the situation more and reduce the quality of the material as the translators interest is not in accordance with the research questions. To be Spanish speaking also provided the understanding of everything that was said and no information got lost as it presumably could in the case of using a third person for translation. A translator could perhaps exclude parts that according to him or her were irrelevant while it for the researcher in contrary is considered relevant information.

When working with translators much information is possibly lost in the translation to the researcher. Both the questions and the answers is possibly biased and influenced by the interest of the translator, the skills of the translator in both languages and the way the translator interprets the statements. Further much preparation for the interviews has to be made to be able to work effectively together with a translator. When the translator makes his own summaries of the answers by respondents and then redistributes what is said to the researcher, different nuances in the statements can go lost. (Söderbäck & Schwartz 2010).

Kvale (1997) explains that qualitative interviews have few rules and the standards are more compounded and how no common procedures exist on how interview research should be made. The advantage of qualitative interviews is the openness they provide but that also comes with responsibility and skills from the interviewers side. The need to make many analyses on methodological decisions on the same place and time when the interview is made requires an interviewer that has the necessary knowledge. The interviewer need to have knowledge on the subject discussed in interviews and be aware of the conceptual problems connected to get knowledge form conversations. (Kvale, 1997).

The type of interview should be chosen according to the target group and what subject that is being studied to fit the purpose of the study. It could be totally structured with
fixed questions or categories or just be put together by information gained by other more informal ways. The interview could be used alone to gather empirical data or together with other research material as a complement. An open interview or unstructured can be without any formulated questions in advance and requires the interviewer to state questions that highlight the subject and research questions during the interview. The goal of the unstructured interview is to get respondents to talk openly about their experiences and this can sometimes be very demanding, why the most used form is a more structured form. A semi-structured interview that has determined subjects selected in advance is the most used method. (Dalen, 2008).

Full interviews following appendix 1 were more or less structured interviews and tried to follow the order of the questions as listed. However during the meeting with the farmers the circumstances sometimes made it necessary to adapt the interview. For example questions were asked in different order and some questions had to be excluded and new ones added. Many interviews were also semi structured and consisted of a looser conversation of the different subjects that also the structured interview discusses. Organic farming, productivity, sustainability, certifications, cooperatives and house economy are some of the themes mainly discussed in most structured and unstructured interviews. The unstructured interviews made are sometimes only regarding a few of the different subjects. Respondents could have little time to spend sitting in an interview or sometimes did not give the expected answer from not knowing or not understanding the question. The cultural clash makes it important to be patient from both the respondents’ side and the interviewers. The understanding of concepts is different even if the literary understanding is there, this makes follow up questions very frequent in the interviews. All material was recorded and is stored for personal use only with anonymity granted to the responding coffee farmers, further materials like transcribed interviews and recordings can be addressed for good reasons. The contact persons at Institutions and organizations will however be mentioned as they have shared information that is less sensible and controversial.

During the first three interviews made in field some support with the interviews were given by a third person. This was mainly because an opportunity to interview many farmers at the same time was given but during a limited amount of time as they gathered for a meeting at a cooperative. To be able to interview as many as possible Spanish speaking and native Peruvian Maria Alejandra Ramirez was to a lot of help and conducted some of the interviews.

To make sense out of the gathered interviews they had to be analyzed afterwards as the empirical findings were going to be presented and analyzed together with the theories the study is based on. The analysis of finished interviews began in Peru collaterally with the ongoing research procedure in field at the same time as new interviews were made and later finished back in Sweden to complete the thesis. For the analysis of the interviews an ad hoc approach with two different methods were used.
Kvale (1997) also states that the presumed most used method for interview analysis is ad hoc of different methods to build a meaning of the material.

As a hermeneutic approach pervades the research procedure a “Meaning interpretation felt as a well dedicated analyze method. Kvale (1997) explains how Meaning interpretation is used to analyze interviews to an additional level and understand the meaning behind what is said. It has inspiration from the hermeneutic approach and forms an understanding from looking for other signs than just what is said and then goes back to look at the whole message of the interview and then again at the details. Meaning interpretation is a method for extensive and deeper interpretation of the message. (Kvale, 1997).

Also as the amount of gathered material is huge it opted for a need to reduce the volume of the information and make it more concise and concentrated. Through a “meaningful concentration” the essential messages of the respondents could be brought forward and presented in a shorter form. Kvale (1997) writes that a meaningful concentration is a method for analyzing interviews by making the message given in the interview shorter by concentrating it and therefore communicating the relevant meaning in a fewer words. It implies first reading the interview and then trying to find the meaning of messages that the respondent are giving to be able to get the bigger picture and understand the dominating meaning of the whole conversation. The interpretation should be without prejudices and try to understand the messages from the point of view of the respondent. (Kvale, 1997).

3.4.3 Pre understanding
The pre understanding was vital to understand, communicate and get a faster orientation while at place in Peru and in the region Junín. The different context definitely made the study more difficult but also yielded very interesting results. First of all the ability to speak Spanish were the key ability to make the interviews possible but also earlier traveling in Peru was invaluable experiences that obviously made everything regarding the field study easier and feasible.

I’m aware that Spanish is not my first language and that there still exist misunderstandings and misinterpretations in the communication with Peruvians. However the quality and possessed language skills in Spanish reach a speech and writing similar to my English level and I evaluate my language level to be adequate for conducting research and studies on Spanish.

Further pre understanding from living in Peru for several years and experience of doing business in the country increased the efficiency in the research process compared to what it would be with the absence of those attributes. During the years in Peru I ran a
restaurant together with my fiancée, visited many different places, met a lot of people and slowly became more Peruvian as I adapted to their culture and customs and assimilated Peruvian qualities to my mind. It would be a lie to say I’m not incorporated into the Peruvian context as a whole. However the region of Junín was new and the reality was a bit different as in the rest of Peru. Obvious the context is not homogenous through the country but still very similar if comparing the provinces on the countryside where the industrialization of the capital doesn’t reach. The established contacts in Peru were to a lot of help during the research, providing references, contact information and support during the research.

The pre understanding was crucial for this type of work and without any pre understanding of the context and language skills the method is not replicable. Hellesnes (1988/1991) explains how this pre understanding is critical for the way the hermeneutic process works, in the search of understanding something we need to have a pre understanding, an expectation of what is to be found. To start the progressive understanding of something the pre understanding must be present. Pre understanding has a wide meaning and could be based on earlier experiences and understanding of a language, culture, subject or similar but it could also imply the fact to just understand anything about the interpretandum in question. The hermeneutic approach implies interpretation by the whole subject, its components it’s built on and the pre understanding. (Dalen, 2008; Gustavsson, 2007; Hellesnes, 1988/1991).

The orientation, language skills and being familiar with the culture not only helped in doing this study in a more effective and efficient manner with good results. It also made it appropriate to do the research from a hermeneutic perspective that in the end produced the adequate knowledge on the research problem.

### 3.4.4 Measuring devices

The instruments that have been used to conduct the research are; me myself as a translator, interviewer, observant and photographer; an iPhone 4S for the recording, photographs, video recording and my girlfriend acting as assistant in a few cases. My girlfriend has conducted one of the interviews and participated and helped interpreting the statements in a few others as well as observing and taking photographs at some points.

### 3.4.5 Primary data

Primary data in the form of empirical knowledge was gained through interviews with coffee farmers and different key persons in companies, organizations and institutions that works or has connections to the coffee market. Among the primary data are also observations, photographs and video of the coffee farms, cooperatives and other entities. Examples of some participating firms, associations and institutions are Asociación de Exportadores del Perú (ADEX), BioLatina, Central de Café y Cacao, NGO
Amazonas, Shuqush café organico and four different coffee cooperatives. Also two different outposts of the agriculture ministry were participating in primary research conducted in the specific region, Junin.

3.4.6 Secondary data
A lot of secondary data was used before the study to get more pre understanding of the situation in the coffee market and the role of Peru as a coffee producer and exporter. The secondary sources that are used in this report are included in the references or as a source in the text. Many secondary sources that were of use to form an understanding before and during the fieldwork were excluded in the report. The exclusion of those secondary sources was a result of the limited amount of time, but also by the fact that they were not especially relevant to the purpose and research question of this study or contained excessive information. Secondary sources that were used represent books, homepages, statistics, newspapers and documentations from different institutions and organizations.

3.4.7 Theories
The theories that lies as ground for the thesis and are found in chapter 2 are based on scientific and academic articles, literature and other earlier research on the subject or underlying concepts that are of importance to the studied problem. The sources to the theories have been used were mainly found in the library of Mälardalen University and the electronic reference-databases that Mälardalen University offers access to as ABI/INFORM Global, EBSCO HOST, DiVA and ProQuest. Also the search engine Discovery for Mälardalen University has been used to browse articles in different electronic reference-databases. Google Scholar was another helpful search engine for academic and scientific papers.

Some of the keywords that were used to search information are: Organic coffee, Organic Farming, Organic Sustainability, Sustainable Coffee, Sustainable development, Coffee Peru, Organic productivity, Certifications, Organic certification, Coffee certifications and Sustainable certifications.

3.5 Reliability and Validity
The reliability relates to the consistency of the research results and is commonly defined as the relative absence of the random measurement failures. It’s about however continuous measurements generate the same results and to what extent they do. (Gustavsson, 2007; Kvale, 1997). Reliability in the qualitative study has received much criticism from scientists with a traditional quantitative approach. Claims that to few participants are involved or that the study is biased by the instrument or leading questions are common arguments. (Kvale, 1997).
To achieve reliability in qualitative studies it is necessary to consider the method that is used, if it is adequate for the purpose of the study and if the different instruments used to collect, interpret and analyze the data are suitable and without bias. (Gustavsson, 2007; Kvale, 1997). From a qualitative approach the instruments used for gathering data consist of both technical equipment and humans which both have to be able to take reliable measurements and complete their task in an adequate manner. (Gustavsson, 2007).

The reliability represent to what extent random errors of measurements are present in the empirical measurements for the study. Random errors could be caused for many reasons, mistakes in coding of original data or by a simple incorrect press of a button. The people conducting the study reduce the reliability if committing errors from fatigue, memory problems, temporary mood and difficulties in understanding. Errors could also be the result of failing technical equipment but for all instruments it applies that the reliability of the measuring instrument is higher if there are less errors. Higher reliability is achieved by using multiple indicators for the same measurement. In qualitative interviews control questions are used to see to what extent the questions reproduces consistent results. Various questions then have to be asked that are separate and independent indicators of the same phenomenon. (Gustavsson, 2007).

Validity is separate from reliability and measures to what extent an empirical measure really measures what ought to be measured. The validity of the study is not necessary guaranteed because reliability has been achieved since the usage of multiple indicators to achieve reliability doesn’t guarantee that the measured value is the same value that were proposed to measure. The validity is not influenced by random errors but by systematic errors that are persistent in the different measures or trails by the instrument. As an example if a scale shows different measures varying from too low and too high the error is random but if instead all trials of weighing objects on the scale shows a value that is too high, the error is systematic. Therefore the human as an instrument also possibly adventure the validity, if he or she has some specific attitude, viewpoint or prejudices that can bias all the measurements on the subject. Still if all the answers are biased they are not necessarily unreliable, in other words the same answer is possible to receive from various interviews with the same question but without giving a correct measure. Reliability of a measurement thus may exist while validity doesn’t, but for validity to exist reliability is necessary. Reliability is not a sufficient condition to secure validity of an instrument, the validity of an instrument is not possible to assure by a simple formula. To depend on the theory behind the study becomes more important to assure the validity of an instrument, as it is the only existing guideline when talking about what a concept is reserved to measure. When measuring physical properties of something validity is pretty straightforward, we are for example quite sure the result will be the same while for example measuring the length of something disregarding if we use a ruler, measuring tape or another similar instrument. (Gustavsson, 2007).
To assure validity different tests that are made continuously can in the long-term form conclusions on the validity of the instrument. In the validity check often the examination of the content in the empirical instrument are made in a judicial way to see however the chosen indicators constitute reasonable operationalization of the theoretical concept. Also the reliability is studied to assure validity as well as reliability also is a condition for validity to exist. The instrument is also compared with other instruments to see if the correlations in the results are the same for the different instruments. Further the stability of the measurements that the instrument uses is studied, if the measure gives the same answer over time or if the question may be answered in a different ways depending on the situation of the respondent. Lastly also the way that the instrument relates to other empirical measures in a manner that is predicted by theories is studied. (Gustavsson, 2007).

The method and study process used in the thesis were from personal experience good at revealing the answers of the research questions, the method was chosen to fit the nature of the study and seemed adequate to produce correct results and conclusions to fill the purpose of the study. The deliberate choice of conducting in-depth interviews in this case of a field study felt natural and while at the same time the conditions the study was made under made interviews almost a must as method for gathering empirical evidence. The reliability would almost certainly be less if using measurements with quantitative methods, dedicating the same amount of time and with the same budget. It would not had been possible gather enough numeric data to give an accurate representation of a significant area.

The quality of the technical equipment in this case the iPhone 4S is reasonably good and has high reliability and validity as an instrument. The sound recordings are of pretty good quality and sometimes provided better sound than in the “real life” situation when much disturbing sounds were present. Some noisy sounds even seemed to be filtered and reduced in some of the audio recordings of interviews. For example at one time when construction work was being made in the building where the interview took place and made it very hard to hear the answers of the respondent. While listening to the recording afterwards the respondent was heard clearly and the noises of construction seemed reduced. The quality of the photos and videos is also sufficient for any of the purposes of the study and photos and videos are done with more or less consistent results, some may be a bit blurry or slightly different quality.

The reliability of the humans participating as instruments is harder to assure, the interviews and other steps in the research have been as objective as possible. Personal interests have not been influencing the answers of respondents and the direction of the study. Being objective in interviews to not get biased answers were crucial and therefore personal interests and opinions were saved for conversations after the interviews were made. Before the interviews only a brief of the purpose of the study was
presented and an explanation of the origin of the project was given. This was made to assure respondents that the research was only a university study and not an investigation that in someway could result in bad consequences from revealing eventual irregularities through answers. Reliability of the human instruments in conducting the interviews and interpreting statements and observations was partly connected to pre understanding that helped provide reliable and valid information. The ability to understand and translate answers into correct and reasonable conclusions was crucial to be able to present reliable findings in the research results. The validity and reliability can however be questioned by the fact that respondents first lacked understanding of the questions and later because they did not want to reveal truthful information on some points. They were afraid of revealing facts that may be inappropriate and could penalize them.
4 The coffee market and Peru

This chapter presents empirical findings and secondary data compiled to give the reader some pre-understanding as well as some theory regarding coffee for the analysis of the empirical evidence. The presented topics provide knowledge that is necessary to understand the context the study was conducted in to better assimilate the findings from the interviews with farmers in next chapter.

4.1 Coffee production

Coffee originates from Ethiopia in the beginning and today it is one of the most popular beverages in the world and a widespread coffee culture is today seen in countries like United States, Italy, Germany and the Scandinavian countries. The coffee is considered the most important commodity after petrol and constitutes the prominent export income for many producing countries where it also offers employment to millions of persons. For some countries the coffee represents over 80% of the revenues from exports and have therefore been given much attention from the politics and economy of developing countries. (Fundes, 2012).

It exists many different coffee species but the most and almost only produced, commercialized and listed coffees in the international market are Arabica (Coffea arábica) and Robusta (Coffea canephora). It also exists many different varieties of coffee, some varieties of Arabica are Typica, Caturra, Bourbon, Catimor and Pache. The Arabica is characterized for being aromatic and having better taste qualities than the Robusta that has a harsh, astringent and bitterer taste. The Robusta also got a higher level of caffeine than the Arabica that contains between 0.9%-1.7% caffeine while Robusta has an average of 1.6% to 2.8%. The Robusta is mainly produced in Africa, Brazil and Asia while Arabica principally comes from America, East Africa and Asia. The world consumption of Robusta coffee has been stable, averaging 48,4 million bags in the period 2007 to 2011 while consumption of Arabica coffee has been growing from 74,1 million bags in 2007 to 80,8 million bags in 2011. (Fundes, 2012).

The principal regions of the world where coffee is produced are Central America, South America, Africa, Asia and Oceania. In South and Central America the largest producers are Brazil, Colombia, Peru, Mexico, Guatemala and Honduras. The largest producer and exporter worldwide is Brazil, with an average production of 40,98 million bags during the period 2004-2011. Second is Vietnam with 17,27 million bags followed by Colombia with 10,38 million bags, Indonesia with 8,69 million bags and Ethiopia 5,86 million bags. One bag in this case contains 60kg of green coffee. (Fundes, 2012)

Coffee is confusingly often presented in many different measures in statistics, export and import measures are often presented in amount of bags which are generally 60kg each but also sometimes 46kg each. It is not always specified what kind of bags that have been used in the statistics by sources, this makes comparisons difficult in some
cases. The 46kg bags however originate from bags of 100 pounds each, as 100 pounds equals almost 46 kg (45.36kg to be exact) and goes under the name quintal. When talking about coffee the amounts are also many times presented in terms of kilos, tonnes or the value in dollars that further increases the confusion. (Fundes, 2012).

The production of coffee is very demanding from the producing farmer that pre-harvest needs to manage his plantations, fertilize, clean weeds, prune, plant new plants and combat different pests and diseases if he want a reasonable harvest. Post-harvest the coffee cherries need to pass through several different processes before the finished product for export is achieved. First the fruity flesh around the coffee bean need to be removed, then the beans are fermented for some time to get rid off the mucilage around the bean, after fermenting the beans are washed and then dried in either the sun or by technical equipment depending on the level of technology available to the farmer. Some producers are more technified than others and process more beans in shorter periods of time and with less labor needed. The process is however a bit varying between countries and regions and give results with different quality of the final product. (Fundes, 2012).

The productivity and quality of farmers’ crops depends largely on how modernized and technified the cultivation is. The quality of the coffee is determined by the plants health and conditions it grows under, however the best quality is achieved by handpicking the coffee as less defects and foreign material is mixed with the mature coffee cherries. The processing and storage of the coffee has to be adequate to not deteriorate the quality of the coffee. (Fundes, 2012)

Looking at the productivity of coffee i.e. the yield per hectare in the world it's revealed that Vietnam had the highest average from 2001 to 2010 with a harvest of 1940kr/hectare. Brazil is following but has a yield that is almost half of Vietnam's average between 2001 and 2010 landing on only 1050kg/ha. After follows Colombia 920kg/ha then Ethiopia 790kg/ha, Uganda 660kg/ha and lastly Indonesia at 580kg/ha. The world average was 760kg/ha. (United Nations Conference on Trade and Development, www.unctad.org, 2013, 21 May).

Some plants such as the variety elite are much more productive than traditional varieties and give a yield averaging about 1500 pounds, about 680kg per hectare. To increase the yield it’s possible to prune the coffee plants. Pruning makes new branches grow from the plant and eliminates dead wood for a better distribution of the nutrients. Pruning also optimizes the use of pesticides and insecticides and facilitates the gathering of berries when harvesting. (United Nations conference on trade and development, www.unctad.org, 2013, 21 May)

In recent years the certified coffees have taken more ground and is a fast growing segment in the coffee industry, especially in mature markets. In 2009, 8% of the total
exports of green coffee had some kind of certifications that proved its sustainability. The Netherland was the leader in market share of sustainable coffees where 40% of the imported coffee was certified. Organic coffee is the earliest formed certification and largest certification with Peru as today’s main exporter and United States, Germany and Switzerland as main consumers. (International Trade Center, www.intracen.org, 2011, 10 March).

In the world today it exists about 1.6 million organic farmers growing different agriculture products and 80% of them are situated in developing countries (www.SLU.se, 2013, 20 March). There are various different sustainability labels for coffee like shade-grown, bird-friendly, organic and FairTrade (Román, 2009). These sustainability labels offers benefits for 0.75 million coffee farmers households worldwide but also benefit the actors along the whole supply chain (Román, 2009).

4.2 Coffee consumption
The majority of coffee is not consumed by the producing countries but other countries that imports the product. In the world there are more than 150 countries that consumes coffee and in 2010 69.1% of the total amount of produced coffee in the world were consumed by importing countries while producing countries stood for the remaining 30,39%. Looking at the consumption per capita in the importing countries during 2009 Luxemburg leads with 27,40 kg followed by Finland with 11,92kg, Norway 8,92kg, Denmark with 7,89kg, Switzerland with 7,65kg and Sweden with 7,35kg. (Fundes, 2012).

The consumption is almost constant in Italy, United States and France while it’s growing significantly in other countries like Luxemburg, Greece, Switzerland, Australia and Spain while analyzing the trend of consumption from 2004. The consumption is decreasing in European countries like Norway, Denmark and Germany. (Fundes, 2012).

In the producing countries the consumption is much less per capita than in importing countries. Consumption per capita in coffee producing countries is lead by Brazil with 5,48kg followed by Honduras with 3,77kg, Costa Rica with 3,54kg and Venezuela 3,41kg, while Colombia consumes only 1,87kg. (Fundes, 2012).

The consumption is however increasing in producing countries where total consumption have risen from 29,66 million bags 2004 to 40,27 million bags in 2010, mostly the consumption increases in Brazil, Indonesia and Ethiopia. The total consumption in the producing countries is almost constant though with an average of 91,2 million bags in the last seven years counting from 2010. United States represented 21,22 millions of those bags on average and Germany 9,23 millions followed by Japan with 7,18 millions and France 5,33 million bags. (Fundes, 2012)
As the demand has been growing more than the supply of coffee in the latest years producing countries have been motivated to generate programs of renovation and expansion of coffee plantations. The increased cultivation and production of coffee from the incentive created by a growing demand have added more supply to the campaigns of 2011 and in 2012. (Fundes, 2012)

4.3 Coffee Prices

The international coffee agreement (ICA) was an attempt to control fluctuating and low international coffee prices, based on a quota system lasting from 1962 until 1989. The volatile coffee price is a consequence from the sensitivity of coffee supply to droughts and frosts, the impact of coffee prices on producing countries terms of trade and the inelasticity of coffee demand among other things. The ICA was successful in the beginning but ended in collapse, prices have been low since then except for some years when frost reduced Brazil's yields substantially (Chavas & Mehta, 2004). After the ICA collapse value has been transferred from farmers to roasters in importing countries that have enjoyed much prosperity while at the same time farmers have only seen lower returns. The percentage of retail price that the coffee farmer earned between 1999 and 2002 were about 5% in contrast to what it was during the ICA period when producers share were around 20% (Gilbert, 2006).

Reasons for the downward trend in price in the recent decades are also increased productivity from higher intensity farming by “technification”, high yield coffee varieties and some mechanization of production (Ponte, 2002; Valkila, 2009). Sloping prices are partly caused of an oversupply but also change in the governance structure and institutional framework of the value chain. (Ponte, 2002). Gilbert (2006) means that the processing and distribution costs of coffee have risen until at least the start of this decade while at the same time productivity gains have reduced production costs of coffee. Looking at the retail price that has only fallen slightly implies a decline in the producer shares of the retail price (Gilbert, 2006).

A great fall in the coffee price was seen in the first quarter of 2012, prices had started to slope progressively since January that year. It reached its lowest levels for the first quarter of 2012 during April at US $170 for one quintal. According to ICO this was the cause by high inventories in the coffee industry together with new high productive areas and an estimation of a good harvest from the campaign 2012. (Fundes, 2012).

Coffees are sold under different categories depending on production methods, variety of coffee and treatment. Groups that have been established that have difference in their price on the world market are, in order of highest to lowest price: Colombian mild Arabicas, other mild Arabicas, Brazilian natural Arabicas and Robustas. Prices obviously vary with the demand and the supply of coffee but in general a higher price is given for coffee in the category “Colombian mild Arabicas”. The Colombian coffee has evidently
positioned itself successfully on the international market, looking at the price of “Colombian milks” on the New York Stock Exchange (NYSE). While “other milks” were sold for US $194,24/quintal the “Colombian Milds” reached a price of US $ 223/quintal in 2010, a difference of almost US $ 30 on average. In 2009 the average difference between Colombian and other milks were US $ 40 with the price difference being US $ 100 in some months. The price of “Colombian milks” has also risen drastically because of the fall in coffee production in Colombia during the latest years, a decrease of almost 40%. (Fundes, 2012).

Brazils coffee is quoted in the “Brazilian natural” category and generally receives a lower price than ”Colombian milks” and “other milks”. Comparing the average price in 2010 on NYSE for “Brazilian naturals” that was US $145,71/quintal it was US $ 48 lower than the price of ”other milks” the same year. The average price for the robustas on NYSE the same year was US $ 84,09/quintal. (Fundes, 2012).

The prices of coffee went up significantly during 2011 where averages for the year at NYSE were, US $ 284/quintal for Colombian milks, US $ 273 for other milks, US $ 243,67 for Brazilian naturals and US $ 115.99 for the robustas (Fundes, 2012). Coffee prices started sloping dramatically after 2011 and the category “other milks” got down to as low as US $ 170/quintal during the first quarter of 2012 (Fundes, 2012). However prices have continued to fall significantly and are at todays date (2013-05-15) at US $161,62/quintal for Colombian Milds, US $ 149,71/quintal for other milks, US $ 133.29 for Brazilian naturals and US $ 101,96 for robustas (www.ico.org, 2013-05-15).

At the April 2012 event of the yearly exhibition by Specialty Coffee Association of America (SCAA), it was concluded that as coffee production expanded in the producing countries and new plantations begin to give yield, the supply are growing faster than the demand. The new volumes of coffee in the world production are definitely contributing to the falling coffee prices. (Fundes, 2012).

The demand for sustainable coffees is growing as coffee roasters want to convert all of their coffee into sustainable coffee according to Matt Horsbrugh and Jos Algra from Twin. The roasters are however asking for standard quality for lower prices and have less preference for organic coffee and works with exporting companies rather than cooperatives and other organizations by producers. (Fundes, 2012).

Another concern about sustainable coffees, in this case FairTrade were mentioned by the Central de Café y Cacao that explained how the separation of Fairtrade International (FLO) and Fair Trade USA (FTUSA) in the beginning of 2012 threatens the price premiums and benefits for small farmers. Central Café y Cacao explained how FTUSA had left FLO to start certificate also large private firms. The Fairtrade had before been limited for cooperatives but now as big plantations also get certified the Central de Café y Cacao fears that small organized farmers won’t be able to compete and their benefits
eroded as the label will become insignificant. (*Interview with David Fundes and Geni Fundes at Central de café y cacao, 13 December 2012 09:13, Lima*).

### 4.5 Peru and coffee

The rural communities in Peru have not benefited nearly as much from the recent economic growth as the urban coastal communities have where development has taken place. Rural communities as Afro-Peruvian, indigenous and poor populations living in the mountain regions and the Amazon are still living in a situation with a poverty rate of 55% while the national average is about 30%. During the last ten years the poverty rate has dropped significantly but is still considered high. Many poor children quit school temporarily or permanently to help support their families and between a quarter to a third of Peruvian children in the age of 6 to 14 work long hours at dangerous construction or mining sites. (www.cia.gov, 2013, 5 June)

As a try to help the growth and development of the country PromPeru or the Perú Export and tourism Promotion Board are working to help promoting the tourism and exports from the country. PromPeru is a governmental agency and gives capacitation and provides documentation on exports and gives tourist travel information and other aids that can help foreigners in the country. (www.promperu.gob.pe, 2013, 9 May).

Prom Peru with the help of the ministry of Foreign Trade and tourism (MINCETUR) and the private investment promotion Agency (Proinversion) made a project to develop a brand for Peru. The Peru Brand was made to further help to promote tourism, exports and investments in Peru. The economy of the country is growing and the Peru Brand promotes the current favorable business climate for doing investments in Peru. Peru now got a more secure legal framework and there’s plenty to be done in the country in means of infrastructure like constructing ports, airports, highways and telecommunication systems. Peru is mature for investment and also got great biodiversity that is highlighted in tries of attracting investments as it opens for a great diversity of business opportunities, as for example cultivating high quality Peruvian highland coffee. (www.peru.info, 2013, 9 May).

It’s said that coffee was cultivated for the first time in Peru between 1740 and 1760 in the province of Chinchao and Huánuco. And in 1887 the first export of coffee from the country was made to Germany and England. In 2009 Peru took the eight place of top coffee exporting countries representing 3.2% of the volume of total exports internationally. Coffee is today the primary exported agriculture product from the country and the cultivation benefits about 155 500 families, most of them on the eastern slopes of the Andes. More than a million persons get employment through the cultivation, transformation, and commercialization of coffee. About 94% of the produced coffee in Peru is exported and only the remaining 6% goes to internal consumption. (Fundes, 2012).
Peru has today got into the most demanding markets in the world thanks to its quality and development of adequate production of certified coffees like organic and FairTrade. Thanks to the improved production of those coffees Peru has became the world-leading exporter of organic coffee. Peru also continues as leader of FairTrade coffee provider but in that segment Honduras has been advancing rapidly in the latest years and ends up as the second FairTrade coffee producer. Honduras also keeps up the pressure by offering its coffee at very competitive prices. The Peruvian coffee is principally produced by small coffee farmers organized in cooperatives and associations. The certified coffees receive different prices that let Peruvian organizations be more competitive and increase the quality of Peruvian coffee in general. (Fundes, 2012).

Peru cultivates Arabica and the coffee is sold under the “other milds” category on the NYSE. An average of 427 856 hectares of coffee is cultivated in Peru and managed by a total of 171 000 producers. An average of 85 000 hectares of the total cultivated areal are certified coffees. The average amount of hectares that a Peruvian farmer cultivates are 2,5 hectare. (Fundes, 2012).

The average productivity of coffee in Peru reached to 16 quintals/hectare in the campaign 2011 its an increase for Peru but it is much less than other producers as Colombia, Costa Rica and Brazil that are averaging 25 quintales/hectare (Fundes, 2012). The average productivity in the region Junín were in 2006 only around 8,4 quintals/hectare and makes the Junín the region with second lowest productivity even if it is the principal producing region (www.agrobanco.com.pe, 2007, Dec)

The main part (84%) of the coffee produced in Peru is produced in five different regions, Junín (25%), Cajamarca (18%), San Martin (13%), Cusco (17%) and Amazonas (11%). The principal market for the Peruvian coffee representing 79% of the value of total exports in US dollars in 2011 were Germany (29%), Belgium (17%), Colombia (5%), and South Korea (4%). Sweden represented 3 % of the total exports the same year. (Fundes, 2012).

The internal consumption is still very low in Peru and is the lowest of all the principal coffee producing countries with only 0.55kg per capita in 2009 The consumption is however rising thanks to big international café chains as Starbucks, Mc. Donald, Dunkin Donuts and Gloria Jean’s among others that have established on the Peruvian market and are growing significantly and incentivizing the consumption. Only Starbucks alone has more than 25 cafés in Lima. (Fundes, 2012).

4.5.1 Actors on the coffee market
In Peru the coffee already takes its way through various intermediaries before it even is exported to the consumption country. Some of the coffee farmers in the interviews are
working through cooperatives that many times from the beginning were formed by farmers themselves. Other farmers work together with or sell their coffee to private companies that either export the product as raw material or produces roasted coffee to be sold at either the international or national market, or both. Some farmers also sell their coffee to merchants or more commonly called collectors in the nearest village that later sells the coffee to an exporter or other intermediary. Farmers working in cooperatives do so to gather all their coffee together to be able to offer greater volumes and thus gaining more bargaining power to achieve better prices. The coffee broker is a present intermediary in most cases of trade that profits from solving the problem of matching the selling cooperative, private firm or exporter and the buyer in the importing country. *(Interviews with coffee farmers, cooperatives and firms)*.

### 4.5.2 Cooperatives
The cooperatives are organizations formed by initiative from farmers that try to collect bigger volumes of coffee to be able to benefit more from the trading of their product. The cooperatives have many members, sometimes thousand or more and some of them work in the directive of the cooperative and manage the cooperative together with other necessary employed persons for administration, management of projects and other tasks. The large cooperatives need a central administration to manage the large volumes, investments and operations. The larger volumes produced by cooperatives help farmers get more bargaining power and thus a better price for their product together with other benefits of working together. For example investments are made by the cooperative in coffee processing equipment that can be used by members that is needed for producing the unroasted green coffee beans. The cooperatives say they also send technics to visit farmer members of the cooperative to help them increase their productivity and control that they comply with the norms and requisites for the different labels the farmers are certified for. The cooperatives also lend money to farmers for healthcare, planting of coffee and renovation of old plantations. The cooperatives in short mean that they give benefits to farmers in form of assistance, loans and a better price for the product. *(Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki)*.
The cooperatives do have both conventional coffee farming members and organic/FairTrade members. Some members are however only organic but the most part uses the both certifications. This is since the cooperative is the certified producer by the certificating companies. From a commercial aspect the cooperative is seen as the producer and therefore is the certified unit for the labels, the certified members of the cooperative and their land is then inspected by the certification companies and cooperative. Only the certified members get the benefits by the cooperative and conventional farmers that sell their coffee through the cooperative gets no price premium as certified members do. The certified farmers are given a price premium by the cooperative but only consisting of a part of the better price that cooperatives can achieve through trading large volumes and certified product. The premiums that the cooperative gets from the labels goes to investments by the cooperative such as processing plants, facilities, developing projects, capacitation and training to farmers.

The administration and directive of the cooperative also deducts administrative costs before the money comes to the farmer. (Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki).

One of the cooperatives mentioned they get 20 US dollars more for each 100 pounds of coffee or 46kg bag than the price on the stock market for FairTrade label and that at the current time about US $ 8 extra is given for organic. Before the cooperative got US $ 20 extra for the FairTrade and US $ 30 extra for organic, this makes the cooperatives and
farmers much worse of at the moment means the cooperative. The cooperative states that the maximum extra given for organic seen for long time is US $ 10 and that is still a big difference from the US $ 30 given earlier. *Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki*.

In other words the cooperative gets US $ 20 for each 46kg bag of FairTrade coffee and another US $ 8-10 if the bag is also organic coffee. The cooperative then takes the US $ 20 for FairTrade and saves for developing projects and then deduct to cover for administrative costs within the cooperative. One cooperative mentioned as example that they deducted US $ 30 on each bag for administrative costs. As the organic premium has sunk significantly it will be hard to cover for administrative costs and the organic farmers gets a lower price than used to. *Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki*.

Thanks to the volumes the cooperatives handle they have the possibility to sell directly to an importer that later sells to the coffee roaster that sells to supermarkets, restaurants and cafés etc. Sometimes a contract for a specific amount of containers of coffee is possible to arrange with a roaster to avoid the importer and thus get a fixed price that’s higher than the stock price. However it’s a challenge to know where to place the coffee to achieve the best price, for example you may write a contract for almost the whole harvest with a fixed price but the next days or week the stock price goes up and you end up selling below that. Also when stock prices are high and the cooperative want to sell, the importer want to wait until prices goes down. *Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki*.

Another problem is when the cooperative receives much less coffee than what was estimated and projected for the yearly harvest. Fixed and sunk costs then get much higher per bag of coffee exported since there are less bags of coffee than expected from different reasons like diseases, unfavorable weather or farmers refusing to deliver. The cooperatives technics visits farmers to make an estimate of the harvest every year with a margin of about 20%, it can be 20% less than the estimate or 20% more. Farmers that don’t deliver the estimated amount to the cooperative or only part of their yield get recognized as unqualified and get prohibited to use the benefits that we give. The farmer gets a new chance every year and can by delivering his estimated yield get qualified again. *Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki*.

The cooperative means another difficulty for them is the finance; cooperatives don’t have the same opportunities to get loans and funding as large private companies. The cooperatives neither have the same logistics that the larger firms have; cooperatives therefore have a hard time to pick up coffee from farmers as large companies do. Many farmers therefore also chooses to work with firms even tough the price is a bit lower because of the convenience and lower costs of leaving the transportation to the company. *Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki*. 

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The cooperatives explain that they are working on improving the productivity chain of their coffee and work for a sustainable production of the coffee. Some cooperatives also begin to produce small quantities of roasted ground coffee for the internal market that they would like to be able to export to consuming countries. However cooperatives mean it is hard to establish on a market with many other actors that also many times are protected by national regulations by the consumption country. Cooperatives argue that they are inhibited in many cases but search opportunities in countries where they have Free trade agreements (FTA). Also problems in the cooperative with the organizational governing are present since it’s hard to manage the large amount of members and cooperatives lack infrastructure. The cooperatives mean how trying to solve their current problems also distracts them and inhibits them to work on the opportunities. (Interviews with cooperatives in Satipo, La Merced, Villa Rica and Pichanaki).

4.5.3 Private firms

Private firms buy coffee from farmers and then sell large quantities to roasters or importers as cooperatives do but also many times produces their own roasted or instant coffee. Private firms also include foreign firms that buy coffee to sell as roasted and instant coffee around the world. The private firms buys directly from farmers and from cooperatives and collectors. (Interviews with coffee farmers, cooperatives and firms).

The most known firm that many times is mentioned is Perhusa that is the leading coffee exporting firm from and in Peru, they claim to indirect or directly provide work and income to about 35 000 families. They cover the coffee production from growing all the way to export. (www.perhusa.com.pe, 2013, 22 May).

Perhusa have their own coffee plantations but also buy from others and are famous for selling their instant coffee “Altomayo” on the Peruvian market (www.cafealtomayo.com.pe, 2013, 22 May). The private firms are also commonly certified and receive premiums for their sustainability labels as FairTrade, organic etc. The private firms often have better opportunities than the cooperatives from a more effective organizational structure, better finance, capital and logistics. Therefore private firms can also sometimes offer farmers solutions that cooperatives can’t and that some farmers prefer, like solving the transportation issue. (Interviews with coffee farmers, cooperatives and firms).

4.5.4 Collectors

Collectors or merchants that work in the towns and cities of the jungle have storage possibilities and buy coffee from the farmers to collect larger volumes that they sell to companies and exporters in the capital Lima. The merchants, collectors or also called intermediaries are the firms to which many farmers start selling their coffee while still not certified. The collectors are not certified and thus wont pay extra for FairTrade and
organic coffee but still they buy it. Collectors are known to be the ones also paying the lowest prices for the farmers’ products but still make some difference between qualities and pay more for coffee of higher quality. When the farmers say they are not working for a cooperative or firm and only “sell in the street” they refer to selling to the collectors. Farmers then sell to the collector or intermediary that offers the highest price but as much coffee from many farmers is offered and fewer buyers exist the favor will still be of the buyer as they can bargain and can agree upon maximum prices. (Interviews with coffee farmers, cooperatives and firms).

4.5.5 Coffee brokers
Coffee brokers profits from arranging the matching of buyers and sellers of coffee. They often charge for each bag or amount that is traded and help cooperatives and other firms to find a potential buyer or vice versa. The coffee brokers implies necessary extra costs for many entities in the market as they have no other choice or chose to use a broker for convenience and security. (Interviews with coffee farmers, cooperatives and firms).
5 Organic Coffee farming in Junín, Peru

This chapter presents empirical findings regarding the subject collected from interviews, conversations and observations to represent the experiences and opinions of coffee farmers. Participating farmers have been given fictitious names to ensure their anonymity.

5.1 Farmer profiles

The majority of the farmers that participated were organic cultivators but also many times certified for other labels as well. Most common was that FairTrade and Organic certification was used together but many participating farmers also used various other labels together with the organic and FairTrade. Interviewed farmers mentioned labels such as “bird friendly”, “Rainforest Alliance”, “Utz”, and “4C”. Farmers that were producing certified coffee with many labels did many times not know the names of all the labels they used, since cooperatives and firms are the ones that get certificated for labelling. Farmers frequently only knew of some of the labels their cooperative had and was certified for but not all of them. The Farmers in interviews usually had between 0.5 and 10 hectares of land but a few also had larger terrains that were up to 20 hectares or more. Most farmers that were participating had coffee plantations in and around the provinces of Chanchamayo and Satipo in the Junín region. A few interviews were made in the town Villa Rica in the Pasco region on the border to the Junín region. Villa Rica is famous for its high quality coffee and denomination of origin of their product. (Interviews with coffee farmers, Junín).

It could be observed how many of the farmers had problems to get enough income to be able to satisfy basic needs for living. Many farmers’ living standards were very low, the level of education was none or low and child labor was many times present. The people met during the study were frequently asking for monetary and other help and support and many times mentioned they searched for alternatives to get a better life. Many years of neglecting of the region by the government and continuous poverty has made many of the farmers and inhabitants resentful, upset, and suspicious. A few interviewed farmers with larger plantations had better house economy and living conditions and were often diversified or forward integrated in the means of adding value to their product by roasting and packaging. (Interviews with coffee farmers, Junín).

5.2 Why farmers chose organic certification

Some farmers had searched to get organic certification by a cooperative or other association in hope for better profitability and benefits to improve their life situation and development. However the majority of farmers was certified or had been certified because someone from a cooperative, association, firm, NGO or certifier offered them to certify their product. The farmers that had become certified after searching for better solutions themselves had either searched to join a cooperative or firm or formed a cooperative or association together with other farmers. Farmers meant that they also
like the idea of working in an environmental friendly way with organic certification but that the incentive is to make a better income. Farmers that didn’t work with any certification meant it was not motivating them while some farmers had not got the opportunity or had little knowledge of certifications. *(Interviews with coffee farmers, Junín).*

### 5.2.1 Organizations, associations and cooperatives persuading and invitation

Most of the organic certified farmers had got the idea to get organic certification from firms and cooperatives that had offered farmers the opportunity. Farmers that were offered certification from cooperatives and firms were sometimes already members of a cooperative and other times not. *(Interviews with coffee farmers, Junín).*

Alfredo, a farmer from Satipo explained he got certified organic by a cooperative that was offering farmers in his village to get members. Alfredo said the cooperative send out technicians to teach farmers about the benefits they can get and how they can improve their plantations if certifying. Alfredo had recently got organically certified and was before managing a farm with little management and no certification but had seen and got offered certification by cooperatives earlier. As he was not experiencing the same problems with the low price before and had a lack of thrust in cooperatives and firms he did not certify before. Alfredo recently decided to give the certification a try as a solution in these harsher times. *(Interview, coffee farmer, Satipo, 7 March 2013 16:11; the real name of the farmer is not Alfredo)*

Jorge was also a farmer that had been certified but that had quit working with certification after the cooperative he worked with got into bankruptcy. Jorge had not taken the initiative to get certification again and was not sure if he would but said that at first it was the cooperative that motivated him to start with organic farming and certification. *(Interview, coffee farmer, Chikariako, 6 March 2013 17:16; the real name of the farmer is not Jorge)*

The main part of the certified coffee farmers worked with both Organic certification and Fairtrade. The reason for this is that the cooperatives most of the times offer those two certifications to it’s members together and that they are the most common in cooperatives. Firms and cooperative are handling the documentation and price premiums for the certification of associated member farmers. *(Interviews, coffee farmers, Junín).*

A farmer in Santa Rosa de Toterani that we call Juan explained that a small association was formed 2 years ago by the regional government where he lives. Juan said the association sends technics and engineers to the farmers to teach them and give capacitation with the intention to certificate the coffee the farmers grow. The association called “la asociacion de productores agroforestales” has only 27 members so
far and is working on forming a cooperative to help farmers sell their coffee collectively. Juan explains that small associations of farmers in different villages are different from cooperatives and that many associations exists that don’t have a cooperative yet and the ability to sell farmers coffee collectively. Therefore members of many associations still sell their product individually or as they express it “on the street”, to a merchant that buys and collect coffee to sell it to the next intermediary means Juan. (Interview, coffee farmer, Santa Rosa de Toterani, 3 March 2013 14:33; the real name of the farmer is not Juan).

5.2.2 Searching for better conditions
Farmers in the interviews that had not got offered certification by cooperatives or firms had been searching for solutions themselves and tried to join cooperatives or firms that offer support for farmers. Sometimes farmer had been given recommendations from neighbors about cooperatives and certifications and found them that way. (Interviews, coffee farmers, Junín)

A farmer called Hernan from Mazamari explains that he and other farmers he knows have problems with covering their costs, as the price for coffee is so low at the time. Hernan said he was in search for opportunities to start work with some kind of certification but as he didn’t found any favorable benefits from others he and other farmers are now in the progress of starting their own farmers association. Hernan also told that he and his friends cultivate both cacao and coffee and that they want to be able to add value to the products they produce. Hernan seemed to be an ambitious farmer that were doing studies and research for solutions and strategies that can benefit him and other farmers. Hernan had already started to count on a project for their cocoa with some other farmers to be able to produce processed cacao and maybe even chocolate. (Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan).

Another farmer that we’ll call Maria said no cooperative or firm had offered her the ability to get certification yet but was searching for better solutions. Maria meant that she also believed she had too small amounts of coffee to get certification at the moment. Maria said there was also a cost of getting certified and that the amount of coffee she grew was not enough to make it profitable. Maria knew of the certifications and she had friends that were working with cooperatives and said that at some times she could sell her coffee to cooperatives or firms by letting her certified friends deliver her coffee together with theirs. Maria meant that as the amount of bags that she produced was few other farmers could accept to deliver her coffee together with theirs, as it would not be noticed. (Interview, coffee farmer, Valle Hermoso, 6 March 2013 14:34; the real name of the farmer is not Maria).
The majority of the farmers that weren't certified yet knew of the ability to certificate but a small part of very humble and remote farmers had very little knowledge of what it even meant to get certified. Farmers that weren't certified had either not got the opportunity to get certified yet and were waiting for it or searching for it and trying to get a certification. Also some farmers did not want to work with certifications or could not get certified, as they could not comply with requisites. (Interviews, coffee farmers, Junín)

5.2.3 Care for the environment and work sustainable
Many certified farmers liked to cultivate organic certified coffee to take care of and protect the environment and saw benefits from doing so. However the major reason for certifying organic was the expectations for better income and benefits to develop and get better living situations. Farmers in first hand searched for a better price and improvements of their living conditions and farm. (Interviews, coffee farmers, Junín).

Farmers explained in interviews that they did not search to get certification to be working in more sustainable ways in terms of environmental sustainability only. Farmers meant that they try to work in a social and economically sustainable way for them to be able to develop and sustain their family and that's what they look for in working with certifications. (Interviews with coffee farmers, Junín)

5.3 Farmers experience of organic certifications
The smallest certified coffee farmers answered that they had a positive attitude towards the certifications and meant that their experience from the norms, requisites and benefits is that it has helped them. A common consensus among the farmers is however that it was better to work with the certifications before as the price difference from conventional coffee has got much less these days. The price for coffee in general was also higher before and it was easier to cover costs explained farmers. Almost all coffee farmers that were interviewed complained about the price difference and that it had gotten too small to make any difference to be certificated. (Interviews, coffee farmers, Junín).

The main part of the certified coffee farmers worked with both Organic certification and Fairtrade. The reason for this is that the cooperatives most of the times offer those two certifications to it's members together and that they are the most common in cooperatives. Firms and cooperative are handling the documentation and price premiums. (Interviews, coffee farmers, Junín)

5.3.1 Low price
To working with organic certification certified farmers explained they had to put themselves in order to norms and work according to requisites. The farmers mean that
they have started to feel that the requisites are in conflict with the price they get. The price does not recompense for the work means farmers and that buyers need to pay a little bit more if they farmers are going to be able to follow all the orders and requisites that they get. *(Interviews, coffee farmers, Junín).*

In an interview with a young farmer we call Jose, he explained that the cooperatives and certifications in his opinion had not helped their family to get a better life. Jose explained how he could not see that the cooperative or certifications had solved any problem for him and his family. The young farmer told he was not the owner of the plantations but his dad and his family. Jose explain that last year him and his family had a large harvest around 300-400 quintals that they sold for 8 PEN (Peruvian nuevo sol) a kilo while a few years ago the price reached 14 PEN per kilo. The price difference is big means Jose and that it has large impact on their profitability and ability to earn an acceptable income. Jose said the cooperatives and private firms pay a little bit more than street prices but that the support for farmers is still not enough. Jose explained he and his family work with a private firm that buys all their coffee and that they still work with organic certification. Jose means they don’t regret working with the firm or certification but that the current conditions for farmers make it hard to comply with the requisites. Jose said the low price farmers get for organic certification is not enough to guarantee a hundred percent organic coffee and that at times farmers are unable to produce a coffee without any fertilizer for current prices. *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00, the real name of the farmer is not Jose).*

Francisco, another farmer from Pichanaki also said that he experienced many problems caused by the low price. Francisco said the price he got for his certified coffee was too low for providing acceptable living conditions and that even if he got some support with other tasks this was not helping him and his family to develop and gain better economy. *(Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11, the real name of the farmer is not Francisco).*

A farmer called Gonzalo in La Merced said the price for organic coffee was not an incentive enough for him to grow organic coffee. Gonzalo meant that he could earn more while cultivating conventional coffee and that he wasn’t motivated to change to organic only because of its low price. Gonzalo also said he gladly would grow organic coffee only if the price would be the right. Gonzalo means as it is now he feels that it is almost an offense to him that cooperatives and firms ask farmers to comply with strict requirements and norms and give such a low price in change. Gonzalo said that he at least is honest and work with conventional coffee and not as he meant many farmers do, trying to get price premiums for organic coffee even though their farms are not organically managed. *(Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo)*
5.3.2 Low Productivity

Farmers that had been certified or was quitting said in interviews that organic farming implies too much work for too small returns and therefore they now choose to quit. Many farmers’ profits are influenced by a loss in productivity when changing to organic production. Their experience is that to follow the norms and rules of the certification the incentive has to be better to recompense for the loss in productivity. Farmers using some modern agricultural technology, as artificial fertilizers in their cultivation are not motivated by organic certification. Farmers with access to artificial fertilizer said the price premiums of organic certification are too low to compensate for the loss in productivity. (*Interviews, coffee farmers, Junín and Villa Rica*).

Farmers further explain that the organically grown coffee does give reasonable yields when the terrain is virgin or pretty new. No or almost no fertilizer is necessary at the beginning of a coffee plantation as the earth already contain nutrients and organic material. As the years passes production falls and it becomes necessary to apply more nutrients in form of organic material or artificial fertilizers to the earth. If organic farmers don’t apply large amounts of organic fertilizer as guano, compost, dung and other ingredients the coffee starts giving lower yields each year. In the end adding new fertilizer in whatever form is necessary if production is to be sustained. The problem with organic farming is that it won’t produce nearly as much as when using modern artificial fertilizers that are prohibited by the organic certification. (*Interviews, coffee farmers, Junín*).

If not applying more organic material or other nutrients the alternative for farmers to sustain or increase yield is to expand to new land. Farmers were explaining how this was many times the case. Farmers that didn’t have much knowledge in agriculture and never added fertilizers or pruned their plants did instead of renewing their plantations move to new land to plant new coffee plants. (*Interviews, coffee farmers, Junín and Villa Rica*).

Productivity loss is meant by farmers to be one of the largest drawbacks of organic farming and one of the main reasons that farmers quit or suffer from working with organic certification. (*Interviews, coffee farmers, Junín and Villa Rica*).

5.3.3 Increased productivity for smallest farmers

The smallest farmers in interviews that had coffee planted but almost no knowledge of how to care for the plants and manage the farm had initially very low productivity. These small farmers add very small amounts or nothing of fertilizer and do not prune their plants, which lead to the low yields they have. The spacing between plants and amount of shade they get may also be important factors that farmers growing coffee on more empirical basis exclude. Organic certification can for these underdeveloped farmers be increasing productivity by teaching the farmers the basic methods of organic
farming and the needs of the coffee plants. *(Interviews, coffee farmers, Junín and Villa Rica)*

Franco, a farmer from San Juan de Toterani explained that his productivity had increased with the help he got from the cooperative that had given him organic certification. “*The cooperative have sent technics and people that have taught us to plant the coffee in better ways and manage our plantations to make it produce more. Before we planted the coffee like we thought it could be done, now we know how it should be planted. Technics that have visited our farms has taught us to prune the plants, add organic fertilizer and regulate the shade given by trees.*” *(Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; my translation, the real name of the farmer is not Franco).* Franco explained that the productivity they had before was about 5 quintals per hectare and after becoming organically certified and getting capacitation productivity had risen up to 10-15 quintals per hectare. Franco meant that many farmers still work without the proper knowledge and have too small lands or have other problems that inhibit them from becoming certified. *(Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).*

The smallest farmers that were participating and had the characteristics of being more humble and ignorant was the ones that could be seen and developing most from organic certification. Productivity increased for most small farmers and made organic certification tempting for them as the increase in yield could be from around 5 quintals per hectare to 10-15 quintals per hectare and sometimes more. The farmers going from 5 quintals per hectare up to only 10 quintals per hectare still experiences a change of 100% increase in yield per square meter. These farmers also many times had lack of finance for fertilization with artificial and more expensive fertilizers to increase productivity in other ways than working with organic certification. *(Interviews, coffee farmers, Junín and Villa Rica).*

**5.3.4 Increased amount of labor needed**

Farmers in interviews said that the labor increased while working with organic certification. The requirement to use only organic fertilizer that is much larger in volume than other stronger fertilizers implies carrying larger amounts of fertilizer by hand. The prohibition by organic standards of pesticides also make it a tiresome task for the organic farmer to clear all weeds growing between the coffee plants by hand with machete. Organic farmers also need to invest time and work in preparing the organic fertilizers as compost and worm hummus that they prepare on their farm. *(Interviews, coffee farmers, Junín and Villa Rica)*

More labor force is also needed in organic farming to build ponds for treatment of the water used for fermentation of the coffee that is a requirement by the organic certification. The water used for fermentation contains residues and a lot of sugar from
the mucilaginous layer of coffee beans and is a mayor source of pollution in local water sources if not treated properly. *(Interviews, coffee farmers, Junín and Villa Rica).*

Complying with the rules of the organic certification also forces farmers to invest labor and time in adapting their farm to be in accordance with requirements. The coffee need to be dried on a protected platform if not dried in tumble dryers and then stored adequately. Farmers had sometimes experienced the need to build a new storage exceptionally for coffee if they had no space yet separated for the harvest only. Farmers also explained they only could deliver the highest quality coffee they had as organically certified and therefore had to put more work into handpicking and selection. Keeping high quality also implies increased management at the fertilization stage in production. *(Interviews, coffee farmers, Junín and Villa Rica).*

The main theme that farmer meant increased the labor was the extra work needed for cleaning weeds and handling larger volumes of fertilizers. Farmers explained that the weeds that take over the coffee plantations need to be removed often with machete or motor driven brushcutter while not using any herbicides. The extra fertilizers that organic farmers’ need is also carried around in a difficult terrain where the coffee grows. The farmers have to carry heavy bags on their back while walking long distances and up steep hillsides. *(Interviews, coffee farmers, Junín and Villa Rica).*

### 5.3.5 Enlightening learning experience
Farmers that had got capacitation from cooperatives or firms to work in more environmentally sustainable manners to comply with the organic certification found the capacitation to be a beneficial learning experience. In interviews farmers answered that they learnt many new ways of living in more healthy ways and caring for the environment. *(Interviews, coffee farmers, Junín and Villa Rica)*

Farmers meant the capacitation given from certifying organic was an enlightening and good experience and gave benefits for both their farm and house. Farmers explained they had learnt to separate waste, treat wastewater and install proper hygienic services to their house. On the farm capacitation was given in how to manage plantations, what substances are allowed to use, how to protect the environment and also treatment of wastewater. *(Interviews, coffee farmers, Junín and Villa Rica)*

Farmers have also learnt about toxic substances and how to decrease health risks for themselves and the environment and experience that as positive. *(Interviews, coffee farmers, Junín and Villa Rica)*

Ignorance of what to do to increase productivity and yields was common and also made the capacitation in the management of plantations from organic certification welcome. Some farmers being old people that are growing in their manner for many generations
sometimes did not understand how pruning plants could increase the productivity. They refused to prune their plants in the beginning even though somebody tried to teach them it was beneficial as they thought pruning and cutting the plant would kill it. (*Interviews, coffee farmers, Junín and Villa Rica*).

### 5.3.6 Health benefits

Farmers explained that from not using certain substances on the ranch and know how to treat and where to deposit waste the health concerns are less and that is something farmers find positive. Many farmers explained that before they lived very simple and didn’t know about many health concerns that cooperatives and firms now have given them capacitation about. (*Interviews, coffee farmers, Junín and Villa Rica*).

Farmers mean the health benefit that the changes on the farm and their house to comply with rules of the organic certification have made is another positive experience from working with certifications. Farmers mean they have benefitted from using less toxic substances in their plantations and storing waste and contaminated material properly and use hygienic services. Farmers that work with the organic certification experience health benefits from various small incremental improvements but also in some cases in other ways. Farmers that are members of cooperatives or firms can sometimes get help with medical issues and health issues directly in form of loans for medical treatment from the cooperative or firm. (*Interviews, coffee farmers, Junín and Villa Rica*).

### 5.3.7 Difficult tasks that demands more education

The farmers that get capacitated for organic certification and taught to follow certain guidelines and requirements have difficulties in some of the tasks. Organic certification also implies documentation and demand administrative work from the farmer that sometimes lacks proper knowledge to accomplish these tasks. Farmers are also capacitated and required to keep a logbook called “bitacora” of their farm records with costs and revenues, working hours and data for harvest to present to the cooperative or firm. Farmers find it difficult and have problems filling in the registers of the accounting and don’t apply the numbers in their operations. (*Interviews, coffee farmers, Junín and Villa Rica*)

One farmer called Rosa from Peña Blanca explained “*We have been given a register to count our revenues and costs. It has everything ready to fill in but it gives me headache when I have to do it, it is hard for me and my son has to help me when I don’t understand.*” (*Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; my translation, the farmers real name is not Rosa*).

Many farmers keep the logbook only since it’s a requisite to work with the certification to present the numbers to cooperatives or firms and not for their own use. The capacitation of farmers in keeping the registers and write down records in the logbook
seemed to be more a tool for cooperatives or firms than a benefit for farmers. *(Interviews, coffee farmers, Junín and Villa Rica).*

Farmers experienced difficulties in some of the necessary tasks for producing organic coffee from the lack of knowledge and ignorance but also from the lack of capital to invest in more sustainable working methods. *(Interviews, coffee farmers, Junín and Villa Rica)*

The farmer Jose in Peña Blanca explained how he however had a technical career in agriculture and went to an institute and had some education. Jose also explained that the problem for many farmers is the lack of education and ignorance that make it hard for them to be competitive. *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00, the real name of the farmer is not Jose)*.

Farmers experience that they need more capacitation in the administrative tasks that they need to fulfill. More capacitation to understand how to use he numbers and variables from production to draw conclusions and how to make certain measures would be favorable for farmers. *(Interviews, coffee farmers, Junín and Villa Rica)*

### 5.3.8 Strict requirements

Farmers are complaining about to strict requirements that are experienced by farmers that are or have been certified organic. The strict requirements are one reason that some farmers don’t agree with and work with organic certification. Most farmers had experienced the high quality coffee demanded and the long control periods as problematic and too strict requirements. *(Interviews, Coffee farmers, Junín and Villa Rica)*.

**Quality Performance**

Farmers explained they experienced and complained about too hard quality controls of the organic coffee that means a lot of work and that only the best beans can be sold for a reasonable price. The organic coffee also has to be very dry and therefore the farmers coffee weigh less when sold under the organic certification to cooperatives and firms. Defect beans that don’t qualify for the international market has to be separated from the quality beans and are sold on the national market. The farmers experience that the high quality that international firms demand cause more work and less amount of their product get sold. The strict requirements are hard to reach by farmers and especially for the less developed and poorest farmers. *(Interviews, coffee farmers, Junín and Villa Rica)*

From an interview in Satipo with a farmer called Santiago from Rio Negro it could be understood that the coffee is measured by quality performance and humidity level that evaluates the quality of the coffee beans. Santiago means that only coffee with 78% or more quality performance gets exported and that everyone buys the coffee by its quality these days. Buyers of coffee are looking at how much quality performance, defects and
impurities the coffee contains. The farmers that work at lower altitudes get trouble in achieving high quality as their coffee only get around 72%-76% in quality performance explained Santiago. “I have 81% quality performance of my coffee that is grown on 1400mamsl, that is pretty good quality... The beans have to dry to a humidity of 12% and have at least 80% quality performance for the cooperative and firms to accept them as organic”. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; my translation, the real name of the farmer is not Santiago).

Santiago explained in detail the procedure that is used to measure the quality of the coffee that many farmers are unaware of and that Santiago meant could help farmers to evaluate their coffee themselves. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).

First take a part washed and dried coffee and take away all the coffee beans that already have been peeled to make sure all coffee is parchment coffee. Parchment coffee is the coffee that is washed and dried but still has its inner hull or parchment skin left. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).
Take a certain amount of the parchment coffee, preferable like 100 or 300 grams and then take out and weigh all the impurities found in the coffee as dried coffee cherries, sticks, stones, leaves and other foreign material. Count the percentage of the impurities found in the coffee according to its weight. For example an amount of 4 grams of impurities in 100 grams of parchment coffee would mean the coffee contained 4% impurities. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).

Take a decided amount of the parchment coffee that is clean from impurities, like 50, 150 or 250 grams and then remove the parchment hull of that specific amount of parchment coffee. Take the resulting peeled green coffee and weigh it to find out how much was lost in removing the parchment skin. If 50 grams of parchment coffee results in 41 grams of green coffee the quality performance is 41/50=82%. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).
The peeled green coffee is then controlled one more time for the stained and discolored beans that also are weighted to measure the percentage. If about 4 grams of the 41 grams of green coffee were stained the percentage would be about 9.7% (4/41). *(Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).*

Finally the three measurements made can be used to evaluate the quality of the coffee and a buyer can give a price for the coffee from knowing the resulting measures. Measures also make farmers able to get better and improve by seeing what qualities their coffee possesses and Santiago means that its therefore important more farmers learn about this. *(Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).*

Santiago explains that the coffee can’t be over fermented, or smell strange and need to be clean and have the right level of humidity to be accepted on the international market and by cooperatives. These requirements are hard to follow for underdeveloped farmers said Santiago that himself has some grade of technification of his farm. The experience of Santiago is that the quality demanded is very high. *(Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).*

The conventional farmer from La Merced called Gonzalo explained in an interview in La Merced that he had around 76% quality performance and 14% humidity. Gonzalo meant that losing more weight by drying the coffee to 12% and keeping a quality performance of 80% was not motivated by the price premium of organic certification. Gonzalo said that he felt it was unfair that the organic certification demand coffee with 80% quality performance and 12% humidity for the price that is offered today. Gonzalo stated that: “I do better off selling my coffee as conventional on the street with a little bit more weight and less quality as they accept more of my coffee and there’s less work” *(Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo).*

The farmer Rosa said that “In the drying process we get much more work. I feel that the company we sell to take advantage of us and demand very dry beans” *(Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; my translation, the real name of the farmer is not Rosa).*

The requisites of such dry product and with such a good quality performance also excludes many farmers from being able to get a certification and export their product through a cooperative or firm. Farmers therefore also means the effort for getting the high quality organic coffee is for some farmers not affordable for the current price. *(Interviews with coffee farmers, Junín).*
3 year control period
Farmers explained in interviews that the control period for becoming organically certified is up to three years for many farmers. Depending on the earlier state of the farm the control period can be shorter but in general it’s very long. Farmers mean that during the three years controls are made to see that farmers are not breaking any rules and are complying with the requisites of the certification. During the control period no price premiums are given for the coffee or any of the other benefits to the farmer until he is approved after the control period. The strict and long control period make farmers incur the costs and drawbacks of organic certification for extensive time without anything that compensates for the losses present for some farmers. (Interviews, coffee farmers, Junín and Villa Rica).

Farmers are needed to use only organic fertilizers during the control period and the farm animals are not allowed to run freely on the farm, inspections of the house and ranch also confirm everything is kept clean. The washing tank needs to be clean and the pool for treatment of wastewater has to work. (Interviews, coffee farmers, Junín and Villa Rica).

The strict requirements that are forced upon the farmer for an extensive period of time even before he gets any benefits are addressed to be problematic by farmers and something that increase difficulties for them. (Interviews, coffee farmers, Junín and Villa Rica).

5.4 The farmers profitability from organic cultivation
The more humble and underdeveloped farmers and the farmers that were working with organic certification had a hard time assimilate if their total profitability had been increased or decreased by working with organic instead of conventional coffee. Farmers did mostly not see their coffee cultivation from a business perspective and seemed to lack the ability to evaluate the total utility gotten from organic cultivation versus conventional. Commonly farmers answered that they had been increasing their profitability from organic growing but it did not seem like farmers could get a proper measure of their profitability since they did not account for certain costs or income as they should. (Interviews with coffee farmers, Junín).

The lack of knowledge of accounting and costs control made it hard for farmers to give detailed answers on their costs and revenues they had in earlier years. Some farmers even seemed unwilling to give away such numbers as the costs, revenues and productivity etc. Farmers with lack of education and knowledge don’t keep records of the parameters determining profitability as administrative costs, costs for labor and costs for fertilizer etc. Certified farmers kept records of some numbers in a logbook obtained by the respective cooperative or corresponding buyer to present the numbers for the buyer but many did not really use any accounting for their own benefit. Small
farmers used simple calculations only and worked from that. They never really evaluated what could be the best inversion, giving the highest return. (*Interviews, coffee farmers, Junín and Villa Rica*).

5.4.1 Revenues
Revenues had increased after beginning to work with the organic certification for farmers that were underdeveloped and had managed a plantation based on less technology. The revenues increased as the earlier plantations also had been organic coffee but very unproductive and farmers had sold their coffee for conventional coffee prices on the street in lack of buyers. From capacitation farmers with lack of knowledge learn organic agricultural technics that help them to increase their productivity, quality and technify their farm. The price premium from the organic certification also increases these farmers’ revenues together with the increased productivity. (*Interviews, coffee farmers, Junín and Villa Rica*).

Farmers that already possessed some knowledge in agriculture and coffee farming that helped them to increase their productivity could not increase their revenues much from the organic certification. Farmers at this point in development many times had capital enough to invest in some stronger artificial fertilizer and increase productivity much more than the organic farmers. The loss in yield when working organically makes revenues to even decrease from certifying organic for some farmers. The price was still higher for organic coffee but farmers with a good production easily compared the loss in productivity and the increase in price and concluded that price difference was too small to make up for productivity losses. (*Interviews, coffee farmers, Junín and Villa Rica*).

**Yield**
Underdeveloped farmers had before getting certification poorly managed farms and used no or few methods to increase yield, the productivity was low, between 4 and 10 quintals per hectare (qq/ha). From starting to work with organic certification the low productive farmers could learn to prune plants, fertilize correctly and improve yields. Farmers, both smaller and larger more wealthy and technified agreed that the productivity of the organically grown coffee mostly lied between 10 and 25qq/ha and sometimes reached up to 30qq/ha. (*Interviews, coffee farmers, Junín and Villa Rica*).

The certified farmer Franco explained how he got a yield of 10 to 15qq/ha and that before getting certification he only had about 5 qq/ha. Hernan from Mazamari and Alfredo from Satipo also had a productivity of around 10-15 qq/ha after starting to work with the organic certification. Francisco from Pichanaki and Juan from Santa Rosa stated they had a somewhat higher productivity their organic coffee of around 15 to 20 qq/ha. (*Interviews, coffee farmers, Junín, 2013, the real name of the farmers are as mentioned*).

A small organic farmer from Santa Rosa called Victor explained that the conventional farmers that use more modern agriculture technology and more efficient chemical
fertilizers get much higher productivity. Victor explained that he knew some conventional farmers: "I have some neighbors further up the mountain that cultivates conventional coffee and they say they get about 50-60 quintals per hectare using chemical fertilizers. The organic coffee we produce yields about 25 or 30 quintals per hectare, sometimes 15 or 20 but it does not reach above 30 quintals per hectare. 30 quintals is much!" (Interview, farmer in Santa Rosa de Toterani 3 mars 2013 12:17; my translation, the real name of the farmer is not Victor).

![Picture 4 Coffee plant with green coffee cherries that are going to turn red before they are handpicked by farmers](image)

The conventional farmer Gonzalo explain his plantation is mostly organic but that he uses some of the benefits for his farm that organic certification prohibits. According to Gonzalo he harvests a yield of around 40qq/ha and sometimes a little bit more. “There are conventional farmers that produce much more coffee per hectare than me by using more artificial fertilizers but me and my family want to work responsibly... My wife and me do reforestation and keep the environment and water sources clean around us because we want to preserve the world we live... Some farmers that use modern technics in their cultivation and artificial fertilizers has yields of 70qq/ha or more” (Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo).
Organic coffee yields about 25-30 qq/ha when the plants are at their most productive point in life and properly cared for. Old plants need to be cut down and new plantations are needed to keep a steady yield through the years at the farm. The new small coffee plants give no yield the first 2 years and later gradually productivity increases until they reach a point in their lifecycle when yields are at peak and then later starts to decline with the years. Plants have to be pruned to keep them producing coffee for more years before they are cut down. The smaller plants give small yields, as do plants that lack fertilization. The fertile soils of new plantations that haven’t been serving as coffee fields before can give good yields in organic terms the first years without any fertilization at all. By fertilizing virgin land with organic material productivity still rises slightly over what virgin lands produce according to farmers. (Interviews, coffee farmers, Junín).

The productivity with conventional coffee with appropriate fertilization and management is commonly said to be around 70-80 qq/ha or 80-90qq/ha mentioned Rosa, Jose, Juan, Franco and other farmers. Jose explained he heard and read of farmers with yields of 80-90qq/ha but he had never confirmed if it was true. Farmers as Gonzalo, Franco and Jorge also explained how they had heard of farmers with productivity of up to 100qq/ha. Franco said he had heard of yields of even 120qq/ha by highly technified farmers, Franco claim he heard that from Colombian farmers that had visited the village to give lectures and motivation for Peruvian farmers. (Interviews, coffee farmers, Junín)
Gonzalo explained that using too much artificial fertilizer and certain fertilizers and pesticides that are very toxic produces health risks and jeopardize the environment. Gonzalo explains that he tries to show an example of how conventional farmers also can be responsible and take care of the environment. Conventional farmers often use a balanced fertilization of both organic material plus some stronger artificial fertilizers mean Gonzalo. Organic material is needed to not deteriorate the soil and artificial or chemical fertilizers are used to increase productivity. Gonzalo explains he also as many other conventional growers take care of wastewater and other contaminating sources on the farm. In that way Gonzalo adapted some organic certifications principles of working more sustainable but with the use of some extra fertilizers to sustain the yield. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo).

Price

The farmer Francisco stated that the organic certification gave him as farmer a price premium of about 50-60 centavos extra per kilo (0,5-0,6PEN), 55 centavos represent about US $ 0,20 (2013-05-19) or about 1,40SEK (2013-05-19). Francisco also explained the cooperative he sold the coffee to had given better prices before but some years the prices are low, depending on the market and the wealth of the cooperative prices change means Francisco. Francisco explained that farmers don’t get the stock market price that often is referred to for their coffee and that the price farmers get a separate price from the cooperative they deliver their coffee to. The cooperative still have to deal with intermediaries that need to charge for their costs while running the cooperative also means costs that have to be covered for by the sold coffee and the price premiums means Francisco. Therefore the farmers get a price that is lower than the price people see on the market but will go up and down as the market price does meant Francisco. “The price we receive vary and its hard to tell what price we will get each year, last year the price to farmers was between 7 and 8 PEN per kilo and organic certification gave 0,5 PEN extra per kilo. While organic coffee could be sold for 7,5 PEN/kg the price for conventional coffee was about 7 PEN/kg”. (Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11; my translation, the real name of the farmer is not Francisco).

Three women that cultivated coffee called Rosa-Maria, Julia and Martha also mentioned the price premium was becoming insignificant. They had got better prices for conventional coffee from buyers in the street than prices they got for organic coffee last year. Martha said: “Last year I delivered part of my coffee like organic to a firm but the rest I preferred to sell as conventional coffee as its price was higher at the moment. The price in the street was about 7,50-7,60 PEN per kilo while they gave us 6,80-7 PEN for the organic coffee. The price for conventional coffee last year sometimes got to prices of 7-8 PEN per kilo. In 2010 if I remember correctly, the price was about 10 PEN per kilo in the street and the organic coffee 11-11,50 PEN per kilo. In that case it was beneficial for us to deliver organic coffee for 11 PEN but now the price has gone low again, before organic was
good.” (Interviews, coffee farmers, Mazamari, 27 January 2013 16:54; my translation, the real names of the farmers are not as mentioned)

The farmer Franco agreed mentioned he also got 0,5 or 1 PEN more from the cooperative by being organically certified. Franco reported he had got about 7,50 PEN per kilo for his organic coffee the last year but also that the price changes from day to day. (Interview, farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco)

The farmer Rosa from Peña Blanca explained that the firm that she and her husband sold their coffee to had promised a price of at least 1 PEN higher than the price on the street from other buyers but that they never received a price at that levels. The price Rosa got recently while selling small amounts in the street to collectors was between 4,50 PEN and 4,80PEN per kilo she explained. Rosa and her husband sell the majority of their harvest to the company PerhUSA that Rosa explained, at the time paid 5,50PEN per kilo (about US $ 2.1, 2013-05-19). Rosa however meant that for PerhUSA to buy the coffee needs to be very dry and weighing less than what it could while selling on the street. The highest price that Rosa mentioned she had experienced was about 13-14PEN per kilo for organic coffee, an exceptionally high price, what made it rentable to work organic. “Earlier prices have also sunk as low as to the range of 2,40PEN to 3PEN in the street making the difference between the street prices and organic coffee more significant, today there’s barely a difference in price.” means Rosa. (Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; my translation, the farmers real name is not Rosa).

The conventional farmer Gonzalo meant that the price was the only thing that demotivated him from working with organic certification. Gonzalo means that the price needs to be between US $ 180 and 200 (470-524 PEN, 2013-05-19) per quintal for Organic coffee to be motivating. Gonzalo stated: “The coffee roasters get paid gook by the consumers, one quintal of coffee will give you about 2000 cups of coffee that are sold for around US $ 3 in the USA, that’s US $ 6000 for one quintal of coffee! The farmers’ get around US $ 150 for each quintal, a better price is everything I say. A better price would solve everything and also the coca growing, drug trafficking and terrorism.” Gonzalo mean an average price of 10 PEN per kilo would make it possible to grow organic coffee. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo).

The farmers in common saw problems with the price many years when it was too low to even cover for production costs. The prices have gone down and the farmer has been affected by the lower prices received when at the same time prices of food, fertilizers and other necessary supplies have been increasing in Peru. Farmers are also commonly asking for better price premiums and complain about current premiums. Farmers are skeptic if the net benefit they get from the certification is positive. The difference in price from the organic and the conventional coffee has shrunk and are sometimes
mentioned to consist of only 0.50 PEN extra on top of 7 PEN, the 7.5 PEN given for organic coffee represents a price that’s only 7.1% higher than the 7PEN for conventional coffee. *(Interviews, coffee farmers, Junín and Villa Rica).*

### 5.4.2 Costs

The costs are uncertain to say exactly how much they differ when managing an organic farm compared to a conventional farm. The costs depends on many parameters as to what grade the farmers are developed, what steps they includes in their process and if they enjoys economies of scale. Also how much fertilizer farmers use and at which altitude and in what climate they cultivate coffee will affect the total costs. The management of organic coffee meant more administrative costs and labor for farmer while the cost for organic fertilizer was lower for farmers that had used chemical fertilizer before. *(Interviews, coffee farmers, Junín and Villa Rica).*

The costs had increased mostly from changing to organic growing for the smallest farmers and least technified farmers that as before mentioned did little management of their coffee thus also having few costs. However those farmers were also the farmers that had seen the most significant increase in productivity and revenues. *(Interviews, coffee farmers, Junín and Villa Rica).*

*Capital expenditure in facilities, treatment plant and equipment to reach conforming sanitary conditions and working norms of organic certification*

The interviewed farmers explained how first of all the costs of being certified organic implied improving the processing equipment and working conditions on the farm. For cleaning wastewater farmers meant they had to invest in creating special ponds for treatment of wastewater from coffee processing and household activities. To secure the hygiene on the ranch the animals needed to be kept at one specific place and not at the same place where coffee was processed, dried and stored. Farmers mean investment in a specific storage for the coffee is a requisite for being certified and that nothing else can be stored in the same storage room. Fertilizers, pesticides, equipment, coffee and tools all needed to have their certain place on the ranch, what means extra work and costs for the farmers. Different and specific tools are needed for different tasks on the ranch. Farmers say everything has its specific use and its place to comply with organic norms and everything needs to be in order. The garbage need to be sorted out and organic and other trash separated and the house need to be kept clean and in order. Farmers explain that tools could before have multiple uses but now everything needed to be special to keep hygiene. Farmers also explain how they need to have a proper managed restroom for themselves and hired workforce and made a necessary investment as well as before the people went into the bush to make their needs. The investments in hygienic services, and to maintain order at the ranch have augmented farmers’ costs significantly. Farmers are however thankful from what they have learnt in order to keep their ranch cleaner and with better living conditions and mean it was a desired and beneficial change. *(Interviews, coffee farmers, Junín and Villa Rica).*
The costs of the initial investments that the farmers make are fixed and should be accounted for in the price of coffee as fixed costs related to the harvest. The small farmers certifying organic need to take the price from cooperatives and don’t count costs as the fixed investments costs in processing plants to evaluate if they make a profit or if the price they get are too low. (Interviews, coffee farmers, Junín and Villa Rica)

The farmer Santiago explained the costs that are augmented from certifying organic are mostly present in the first stage of change to organic certification if necessary equipment and facilities are necessary. Santiago meant that the costs may as much as double in the beginning to put everything in order but say the investments lasts for long time. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).

**Labor costs increase**

Farmers have pointed out how costs increase with organic production as necessary working procedures includes much more labor force and larger volumes of fertilizer, as the organic fertilizer is less efficient. The larger volume of fertilizer has to be distributed in the coffee plantation by hand and increase amount of labor hours needed for fertilization. The increased volume needed when using organic fertilizer makes farmers need to carry much more kilos of fertilizer and also harms the farmer. (Interviews, coffee farmers, Junín and Villa Rica).

The organic farming also implies more work in picking the mature coffee cherries at harvest time since the quality has to be better and therefore harvesters need to be more carefully done and only the red and ripe cherries need to be picked. The harvest therefore needs to be done in different phases, as not all cherries will be ripe at the same time. (Interviews, coffee farmers, Junín and Villa Rica).

The labor hours needed also increase significantly when weeds between the coffee plants and other vegetation need to be removed manually with a machete or brush cutter. The weeds grow back very fast and every year several cleanups of weeds need to be done by hand. Organic farmers and the workers they hire need to carry around large amounts of fertilizers on the steep slopes where coffee is grown, the terrain on the mountainsides makes the work difficult and no machines can be operated thanks to the topography. (Interviews, coffee farmers, Junín and Villa Rica).

As mentioned there’s lot of work in organic cultivation according to coffee farmers and the cost of payment for eventually needed workers or hours the farmer needs to invest rise. (Interviews, coffee farmers, Junín and Villa Rica)

Most farmers need to contract some workers during pruning, cleaning, fertilization and harvest even if they are neighbors or other family members. Many farmers also contract
workers that come from other places in the country to search for work in harvesting coffee. Workers need to be taught how to perform the work if they don’t have earlier experiences to not break or damage the plants and to do the work properly, teaching workers also takes some time from the farmer. Farmers pay workers about 20 PEN daily (about US $ 7.53 at 2013-05-22) and sometimes a little bit more to motivate workers, about 23 PEN. The farmer also gives a certain amount of meals to its contracted workers and can also at times incentivize workers with extra meals. (Interviews, coffee farmers, Junín and Villa Rica)

The farmer Jose said an incentive or gesture that many farmers make for their workers is to invite to a "Pachamanca" (a Peruvian way of cooking food in a hole in the ground) in the weekends at the ranch. Some farmers have learnt that the motivation of workers is needed to have happy workers that do a good job said Jose. Jose explained he pay his workers 20 PEN daily during work that is paid per day and that he pays 5 PEN for each 18 liter can of coffee cherries workers collect during harvest times. (Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00, the real name of the farmer is not Jose).

A farmer called Lisbeth from San Juan de Toterani meant that you might need 3 persons working per hectare in harvest times, during harvest the workers are paid for the amount of coffee they collect instead of hours of work. Lisbeth also explain its important to act fast while it is harvest time since when rain comes the coffee will fall to the ground and get damaged, deteriorate and lost. When the coffee is mature the harvest has to be done immediately as the coffee then gets bad rapidly. Lisbeth said the common payment that almost all farmers pay during harvest is 5 PEN for each 18liter tin of coffee that is harvested but that sometimes an extra is given to motivate worker to do a better job. Lisbeth explains that when she pays workers daily she also give a few soles more for well performed work like 23 PEN instead of only 20 PEN. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013 13:57; the real name of the farmer is not Lisbeth).

Santiago explained that he follows the payment of other farmers and also paid 5 PEN for each 18 liters of harvested coffee cherries last time. Santiago explains that the 18kg of coffee cherries only becomes about 7.5-8kg of coffee after they are processed and dried in the higher altitude regions and that its even less for coffee grown on lower altitude. The lower regions get only 7kg from the 18liter tins when the content is peeled and dried argued Santiago. Santiago explains that he pay a little bit more than 5 PEN for each can if the job is well done and then workers can get 5,30 PEN for each can. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).

Some farmers also needed to contract leaders that for overseeing the harvesting workers to ensure that workers did not steal coffee from each other or harvested green coffee etc. However many smaller farmers explained that leaders were not necessary for them and they had nobody controlling the harvests or managing the workers. Either the small farmers did act leaders themselves but also their workers had experience and
knew what to do. In smaller communities with more underdeveloped farmers and smaller lands the contracted workers consists of neighbors that also has coffee that don’t need any capacitation since they knew the working procedures. The small farmers benefitted from the experienced workforce of neighbors that didn’t need capacitation and made a good job. People coming from other places and don’t know how to harvest properly usually harvest green beans and bring more other foreign material in the tin. *(Interviews, coffee farmers, Junín and Villa Rica).*

The farmer Jose meant that the costs for labor are increasing every year with the inflation but that farmers don’t see the price of coffee and revenues for farmers following the same trend. *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00, the real name of the farmer is not Jose).*

**Administrative costs**

The small farmers had before working with organic certification not had any administrative costs but from organically certified farmers some sort of accounting was required by the cooperatives and firms. The record of economical data was done in the logbook earlier mentioned called “bitacora” that was managed by the cooperative to evaluate the farmers and explain for farmers how good or bad they are doing. The “bitacora” has the format and names of what parameters that farmers shall filled in and present for the cooperative or firm. The interviewed farmers explained they only used the “bitacora” since it’s a requisite to show the data to the cooperative, farmers didn’t use it for their own decision-making which make it an extra cost for farmers without benefit. *(Interviews, coffee farmers, Junín and Villa Rica).*

The organically certified farmers using the logbook said that it’s new to them and also something that has increased the work. Farmers therefore mean that the administrative work has augmented with the decision of becoming organically certified. *(Interviews, coffee farmers, Junín and Villa Rica).*

A farmer couple Aquilino and Leslie from Toterani said they did nothing but some basic calculations to evaluate costs and their income for themselves. Aquilino meant that he don’t understand much of accounting and cannot apply the numbers in practice from lacking knowledge of certain concepts. The cooperative needs different documentation and the logbook to accept you for organic certification explained Aquilino and that’s why we use the logbook. It becomes an extra task to do the administrative work for the certification said Leslie and the hours of work we put into the administrative work is not accounted and paid for. *(Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned).*

The conventional farmer Gonzalo mention he still has administrative costs even if not working with organic certification but use and need his accounting as he has a more
extensive business. *(Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).*

**Costs of diseases and plagues**

A farmer from Satipo called Rita said she and the majority of farmers are planting approximately 5000 plants on each hectare of land and that maintaining all those plants healthy with the more labor intensive organic working methods is an increased cost. Rita explained the shade, density, management and space between plants affect their susceptibility to plagues and diseases. In organic farming some organic pesticides have been developed to use against the plagues and diseases but they are not very efficient and only effective against some of the diseases meant Rita. *(Interview, coffee farmer, Satipo, 27 January 2013 11:41, the real name of the farmer is not Rita).*

The costs caused by diseases and plagues start for organic farmers with the making or buying of organic pesticides. Farmers then have to apply the pesticide and then the result may be satisfactory or not. Farmers can loose big part of their yield thanks to diseases and the prohibition to use more efficient pesticides when growing organic coffee. At the moment farmers have a lot of trouble with the fungal disease “La Roya” or in English “Leaf rust”. Farmers mention that the current outbreak of Leaf Rust is new to them and a serious problem that threatens this year’s harvest (2013). *(Interviews, coffee farmers, Junín and Villa Rica).*

![Picture 6 Pests and diseases are attacking the coffee plants in the region that destroys the harvest and causes large problems for coffee farmers this year, 2013.](image-url)
The disease leaf rust is everywhere now and all over the plantations stated a farmer called Lorenzo from Chikariako. Lorenzo said the leaf rust has not been a big problem earlier years but that this year entire plantations had lost their leaves and stopped producing coffee. Lorenzo was upset and frustrated “Now I don’t know what to do, it seems like the whole harvest is lost for this year, the whole valley has the same problem and I heard of neighbors that also lost their coffee. I just realized that my coffee also had been largely affected today when I got back to my farm after being away for some time.” (Interview, coffee farmer, Chikariako, 6 March 2013 16:21; my translation, the real name of the farmer is not Lorenzo).

The farmer Gonzalo explain the plagues and diseases are a big threat to the coffee and that the organic certification prohibits some substances that can save farmers yields from getting lost in vain by some disease. Gonzalo explain that as he grows conventional coffee he can better protect his crops but he says he still use moderately chemical pesticides and fertilizers. Gonzalo has even though working with some pesticides problems with leaf rust that he explains is hard to combat. Gonzalo though the leaf rust would lower his yield this year and said that the disease had entered an epidemic state from before not presenting a considerable threat. Gonzalo explained he heard that the leaf rust had affected the whole region and many other regions all over South America.
The cost that diseases and plagues impose on farmers can be high for vulnerable organic farmers explained Gonzalo. For him Gonzalo explained the plagues and diseases mostly increased his costs by the need to pay for pesticides and labor to apply it to the coffee. *(Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo).*

The farmer Franco meant that the plagues and diseases had increased in general and showed series of different signs and symptoms of diseases and plagues that had invaded his coffee. Franco grew organic coffee and had got instructions from the cooperative to prepare and administrate organic pesticides. The damage that some plants in Francos plantation suffered was evidently showing that he had problems combating the diseases and plagues. Franco meant that he also had problems with leaf rust that was the major problem for his neighboring farmers also. Franco said the common understanding among farmers is that the plagues and diseases have increased with the climate change they experience in the region with higher temperatures and humidity. *(Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco)*

Juan explained he estimates he would lose a fourth of his harvest because of the leaf rust outbreak this year. He explains that farmers stand defenseless against the leaf rust and that the cooperatives and agro engineers don’t have an adequate solution for controlling it yet. *(Interview, coffee farmer, Santa Rosa de Toterani, 3 March 2013 14:33; the real name of the farmer is not Juan).*

The plagues and diseases incur increased costs to organic farmers as they make losses in the amount harvested and make farmers need to invest time and money in organic pesticides for controlling different plagues and diseases. *(Interviews, coffee farmers, Junín and Villa Rica).*

**Costs of fertilizer**

The exact costs of the fertilizers and the amount necessary per hectare was not answered by the farmers however they said that the artificial fertilizer was more expensive but required less volumes than the organic. The organic fertilizer is cheaper and some of it even obtained for free from the ranch compost or farm animals dung but is less efficient and plants require large amounts of organic fertilizers to produce desirably. When getting organic certification therefore costs of fertilizer decreased for farmers that had used artificial fertilizers earlier but at the cost of losing productivity. The farmers that become organically certified after not having used any fertilizers before increase their costs by investing and using fertilizers while at the same time they gain productivity. *(Interviews, coffee farmers, Junín and Villa Rica).*

The higher price of artificial fertilizer limits the use of those to people who can afford it. Organic fertilizers are cheaper and therefore provide better opportunities for more
underdeveloped farmers to increase productivity slightly at a low cost. *(Interviews, coffee farmers, Junín and Villa Rica)*.

The farmer Gonzalo explains that organic fertilizers gives very much lower yields than the artificial fertilizers and that he chooses not to work with organic certification also because he can afford the artificial fertilizers that makes him better off. Gonzalo explains that organic farmers reach a limit in productivity in using organic fertilizer at which additional organic material won’t give further productivity. Organic certification can be a good opportunity for underdeveloped farmers that lack knowledge and capital to invest in fertilizers to start using organic fertilizer adequately to increase production explained Gonzalo. *(Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo)*.

The farmer Martha means that they got offered cheap organic fertilizers from the firm that they sold their coffee to before. *“The farmers that delivered coffee together with us to the same firm has been offered manure for 0,40PEN per kilo while the firm also offered partial prepayments of the harvest. This year I don’t know what have happened but we have not been offered any fertilizers or prepayments, which make us worried because we are unsure of how this years harvest will turn out.”* *(Interviews, coffee farmers, Mazamari, 27 January 2013 16:54; my translation, the real names of the farmers are not as mentioned)*

The farmers Aquilino and Leslie mentioned the price of one artificial fertilizer called “cabal” to compare with the organic fertilizers. They said the price for “cabal” was 126PEN for each 50kg bag and that about eight bags were needed per hectare. The cabal and other prohibited artificial fertilizers are replaced in organic cultivation by compost, dung, guano, worm humus and potassium sulfate. *(Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned)*.

5.4.3 Uncertainty, variations and confusions
The costs and revenues that farmers mentioned has to be considered with the knowledge that many farmers were largely uncertain about exact numbers and they were easily confused and mixed different concepts. The variables also varied largely between farmers and were individually different but some conclusions of the fundamental impact on costs and revenues by organic certification could be made. *(Interviews, coffee farmers, Junín and Villa Rica)*.

Variations could apart from depending on the individual also depend on the varying prices of the coffee, labor, fertilizers and other inputs to the farm. The yield and thus revenues will be affected at the same time as costs by the plantations age, altitude, management and influence by plagues and diseases. There was no ability to establish a measure for the corresponding yield connected to a certain amount of fertilizer by the
measures in this study. Farmers that added fertilizers in about the same amount still had different yields that depended on other variables, to measure the yield that a certain amount of fertilizer gives all other variables need to be held constant, demanding a more extensive research. *(Interviews, coffee farmers, Junín and Villa Rica)*.

It does not exist a common understanding between the farmers about the certifications impact on profitability. For some farmers the certification was mentioned to lower the profitability while for others it increased the profitability. Many farmers had lack of knowledge and lack of other alternatives than certifications to make any calculations and research of what is most beneficial for them as coffee farmers. Farmers usually based their assumptions of profitability only on how revenues grew and other non-monetary benefits they had experienced and didn’t control costs or take all costs into account. No real comparisons seem to be done by the smaller underdeveloped farmers that are more marginalized, they don’t know how to make significant comparisons or don’t see the need for it as the organic certification benefits them at that stage. *(Interviews, coffee farmers, Junín and Villa Rica)*.

Only more organized farmers that have taken one step further in development than the marginalized underdeveloped farmers do financial accounting in order to evaluate their business. The smaller more underdeveloped farmers do simple calculations for their own operations and but don’t take into account for example the cost of the time themselves invest in the work on the farm. The uncertainty of how organic certification affects profitability increases as the farmers base their assumptions on measures that don’t account for certain costs. *(Interviews, coffee farmers, Junín and Villa Rica)*.

### 5.5 The benefits and disadvantages that farmers find in the organic certification

The farmer Franco said in the interview that he saw only benefits and he could hardly see any drawbacks from becoming organically certified. Franco meant that for him it was beneficial. *(Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12:24; my translation, the real name of the farmer is not Franco)*.

The farmers Aquilino and Leslie were very marginalized farmers as Franco but meant that there also are disadvantages of becoming organic certified. Aquilino and Leslie said they also felt unsure if the benefits from organic certification compensated for the extra work and limited productivity. *(Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned)*.

Opinions and experiences on organic certification varied between farmers. While the poorest and least developed farmers are largely positive to the organic certification, many underdeveloped farmers still se disadvantages and don’t know if the net benefit from organic certification is positive or negative. *(Interviews, coffee farmers, Junín and Villa Rica)*.
The farmers that were less poor and underdeveloped in general saw more downsides of the organic certification than the poorest farmers. Benefits to farmers other than monetary were most appreciated by the poorest farmers as well while more developed farmers had little use of those benefits. *(Interviews, coffee farmers, Junín and Villa Rica).*

A farmer called Arnold from Villa Rica that had large lands and more organized operations and capacity to export his product directly was working with conventional coffee and saw no real benefits for him in the organic certification. Arnold was sure that the benefits of conventional growing benefitted him more than the organic certification. *(Interview, coffee farmer, Villa Rica, 24 January 2013 09:39; the real name of the farmer is not Arnold).*

5.5.1 Better living conditions

Farmers have seen an improvement in their living situation connected to working with organic certification from the norms and requisites that have given them another vision and taught them to care more for the environment, workers and themselves. Farmers mean that they have learnt to cultivate in sustainable ways that protects and nurtures wildlife and the nature and also learnt to do improvements on their ranches and their homes regarding the way of life of themselves and workers. People sent from cooperatives, firms or certification companies are teach organic farmers what waste is dangerous and how they can treat it or take care of it. *(Interviews, coffee farmers, Junín and Villa Rica).*

The farmer Francisco explained that his family had improved their living conditions from the education connected to the organic certification. Francisco meant the direct benefits his family has got are the things they learnt to decrease health risks. From learning proper management of different types of waste we have decreased contamination risks to humans, animals and nature meant Francisco. Before we farmers threw our trash all around us, farmers dumped their waste in the river or around their houses explained Francisco, something that he mean has changed from the requirements the certification demands. *(Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11, the real name of the farmer is not Francisco)*

In an interviews with a group of farmers in La Merced that were all members of the same cooperative they explained that their living conditions had bettered by the ability to get loans for medical treatment. The farmers named Renzo, Gerardo, Renato, Mario and Ricardo meant the living conditions also indirectly got better from an increased house economy that had been the result for them after becoming organically certified. Renzo mentioned: “We farmers collectively benefit from better living conditions as we now treat the trash and wastewater and have a cleaner river and environment that is more healthy to live in.” *(Interview, coffee farmers, La Merced, 11 January 2013 18:12; my translation, the real names of the farmers are not as mentioned).*
5.5.2 Access to processing and storage facilities

Some cooperatives can take over the responsibility for part of the processing of the coffee and storage that save their farmer members some work and investments in own equipment. (Interviews, coffee farmers, Junín and Villa Rica).

The farmer Hernan from Mazamari explained how they often had problems with storing and drying the product without damaging it. The lack of adequate storage rooms make the harvested coffee to get destroyed by fungus and mold if it not sold short after harvest or put into an adequate storage with the right conditions meant Hernan. As Hernan did not have any good storage himself nor belonged to a cooperative that could store the coffee he was forced to sell his coffee directly after harvest in the street and accept the current price. (Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan).

Farmers that were members of cooperatives sometimes made their own processing and drying of their whole harvest and sometimes part of it was processed and dried at the cooperative. Farmer members of cooperatives that had no ability to process and dry the coffee themselves had to process and dry all their coffee at the cooperative. Most underdeveloped farmers that worked without being members of a cooperative had nowhere to process and dry their coffee and had to sell it to buyers for even lower prices as coffee cherries. (Interviews, coffee farmers, Junín and Villa Rica).

The humidity is the biggest problem for storing the coffee explained the farmer Franco and therefore farmers has to accept and sell their product at low prices. Franco also explained how he and other farmers only could dry their coffee on the ground in the sun and if rain came they had to cover the coffee fast before it got damaged. “My cooperative doesn't have it yet but many use tumble dryers to help members drying the coffee that help a lot to keep the quality of the product” Said Franco. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; my translation, the real name of the farmer is not Franco).

The farmer Lisbeth explained that from being certified and member of the cooperative she and her husband get support by the cooperative with processing parts of their coffee. Lisbeth mean that the ability to store the coffee for a longer time by the cooperative also opens the opportunity to wait for the price to rise and sell the coffee at periods when demand is growing. The members of the cooperative gain from the better price that can be obtained from storing coffee but have to rely on and thrust the cooperative to make the right decisions of when to sell explained Lisbeth. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013 13:57; the real name of the farmer is not Lisbeth)
5.5.3 Collective work and security

The certified farmers were positive towards working with organic certification and in cooperatives or with firms as they also explained how it offered a security to them as they could always get their product sold. (*Interviews, coffee farmers, Junín and Villa Rica*).

The farmer Jorge explain that members of cooperatives and firms has a contract to sell all or part of his harvest and therefore knows for sure their coffee will be sold and for about what price. Jorge meant that with this security farmers get it easier to plan for the future of and how to dispose their income. Jorge explain that the cooperatives started as an incentive by farmers to collect and sell their coffee together to be able to exclude intermediaries and get more bargaining power, thus a better price. (*Interview, coffee farmer, Chikariako, 6 March 2013 17:16; the real name of the farmer is not Jorge*).

Intermediaries to which farmers without certification sell their coffee work together to agree commonly on a max price they pay for coffee to force the farmers to sell at that price or lower. The farmers has to sell at the agreed price as otherwise they would be left with their product that would get ruined and unsellable. Intermediaries are fewer than farmers and the large supply from a large number of farmers favor the intermediaries that get monopsony power from that fact. The coffee market for farmers is an oligopsony and therefore the collective work done by organically certified farmers together in cooperatives benefits them. (*Interviews, coffee farmers, Junín and Villa Rica*).

The farmer Jose explained that he and his family would like to export his coffee directly but didn’t have enough coffee himself to make it rentable. Jose argued that the collective work by cooperatives benefits more underdeveloped farmers but that for him and his family the cooperative and organic certification had its downsides and therefore they sold separately. Jose and his family sold their coffee to a private firm that still pays more than the intermediaries in town explained Jose. Jose stated that a farmer alone need to produce around 1000 quintals to be able to export directly and be competitive on the market. (*Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00, the real name of the farmer is not Jose*).

Franco saw benefits from the collective work and explained that to be organized together and work collectively farmers can benefit to share certain costs as well as get a better price. For Franco the organic certification meant security as it allows him to know that the cooperative will accept and receive his entire harvest, stated Franco. The collective work is a benefit from the organic certification but depends on the work of all farmers mean Franco. Farmers have to do a good job in separating the quality coffee and deliver the same quality as is agreed, if a few farmers leave bags with dirt, leaves and branches in or defect coffee it affects all farmers collecting coffee together explained Franco. (*Interview, farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco*).
5.5.4 Capacitation and education

The farmers saw the capacitation by the cooperatives and firms’ technics and engineers as another benefit from being organically certified. Many underdeveloped farmers explained that the education and capacitation was one of the key solutions for their development as they lacked education. (Interviews, coffee farmers, Junín and Villa Rica).

Franco that had taken part in capacitation explained how he didn’t know much of the cultivation at all before and just planted coffee from empirical knowledge that many times was insufficient. The management that Franco did before he got capacitated was not producing satisfactory but now after getting the organic certification and capacitation he explains the yield has increased. Franco meant he see benefits both from the capacitation for managing coffee and the capacitation and education to improve his daily routines in the house to be more sustainable. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).

The farmer Hernan had not got any capacitation yet as he didn’t have organic certification but said that he wanted to get certification. Hernan meant that the benefits of capacitation would help him since he had very low productivity in his coffee plantations. (Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan).

Renzo, Renato, Mario and Gerardo explained they had benefitted from capacitation in how to live in a more sanitary and healthy ways after getting certification and members of the cooperative they work with. By working with organic certification the farmers meant that the productivity of their coffee also had increased after learning how to manage the organic cultivation properly. Renzo, Renato, Mario and Gerardo had all been lacking knowledge in planting and taking care of the coffee adequately but meant that thanks to the organic certification they now knew how to better plant coffee and get larger yields. (Interview, coffee farmers, La Merced, 11 January 2013 18:12; my translation, the real names of the farmers are not as mentioned).

Jose explained that he and his family didn’t get capacitation, as they weren’t certified either. Jose explained that he however already had adequate knowledge to manage the coffee as he had studied agronomy in high school. Jose believe that the cooperatives can help underdeveloped farmers to increment their production through capacitation, training and lectures but said that it in the end it depends on the farmer to improve production. “Anyhow the things have changed, you learn more, before the farmer planted coffee empirically from what he knew, planting for the cause of planting and being called farmer. In contrast now they know more and are aware of more things and can improve their plantations.” (Interview, coffee farmer, Peña Blanca 2013-03-02 16:00; my translation, the real name of the farmer is not Jose).
Rosa explained she had also got benefits from capacitation by technics that came to teach her how the plantation should be managed to improve productivity and quality. Rosa however meant that the knowledge of the technics of the cooperative was not as good as agro engineers and that she later also had hired an agro engineer that she knew to get more detailed and better capacitation. Rosa explains that the capacitation, especially form hiring an engineer is very expensive and that it’s good that cooperatives and firms take responsibility in teaching farmers. (Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; my translation, the real name of the farmer is not Rosa).

Jorge explained how he got the same capacitation as other farmers. Jorge added that the capacitation also includes knowledge in how to plant the coffee to prevent erosion and washing of the earth by rains. (Interview, coffee farmer, Chikariako, 6 March 2013 17:16; the real name of the farmer is not Jorge).

The farmer Rita from Satipo explained that from now she take care of the environment, clean weeds by hand with machete and do a lot of reforestation. Rita said she now used shade trees for the coffee and that she recycled everything and used organic material to fertilize the plantation. “The farm is beautiful and well managed now” said Rita and meant that the organic certification had helped her to improve with the education and capacitation she got. (Interview, coffee farmer, Satipo, 27 January 2013 11:41; my translation, the real name of the farmer is not Rita).

The farmers Aquilino and Leslie explained that much of the things they’ve learnt are results of lectures and training sessions from private companies, cooperatives or government in connection to organic certification. Aquilino and Leslie said, “Everybody that comes to give lectures and training comes with the same objective, requisites and norms and with the same conditions” (Interviews, coffee farmers, Toterani, 3 March 2013 15:28; my translation, the farmers real name are not as mentioned). The farmers have to follow the norms and produce acceptable quality coffee and therefore farmers get capacitation in managing their plantations, something that benefit both the buyer and the coffee farmer means Aquilino. Aquilino and Leslie also mentioned that the government sends technics to teach farmers and that the capacitation from the government is for all farmers. They however mean the problem with the governmental capacitation is that it’s not extensive enough and reaches few while at the same time its very basic. (Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned).

A few farmers or their sons had some kind of education in agriculture but most farmers had no education at all and learnt exclusively from the capacitation by cooperatives, firms, associations and friends. (Interviews, coffee farmers, Junín and Villa Rica).
5.5.5 Logistics

Organically certified farmer that sold their coffee to private companies that came to the farm to pick up the harvested coffee meant the transport was an appreciated benefit. Farmers selling their coffee to private firms therefore don’t need to arrange with and pay for transport to deliver their coffee themselves. (Interviews, coffee farmers, Junín and Villa Rica).

Santiago that sold coffee to a private firm that picked up his harvest meant that organic certification make it easier to sell the coffee to firms and get benefits of better price and transport. However also conventional growers with high quality coffee have the ability to sell to private firms means Santiago. Thus organic certification is not really a requisite to get the extra benefit of transport. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago).

Rosa that also sold her organic coffee to the private firm Perhusa also got the benefit of logistics from Perhusa. Rosa explains that the firm comes to pick her coffee up at harvest and that it saves her work and costs for gasoline and truck. Rosa explains many farmers live very far from the village or town where the cooperative or intermediaries that buy their coffee are situated. Farmers sometimes need to transport their coffee long distances and some underdeveloped and more primitive farmers only have access to donkeys and mules for transportation according to Rosa. (Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; the real name of the farmer is not Rosa).

5.5.6 Disadvantages farmers find in the organic certification

Farmers reported that they felt a threat of being deceived by the leaders of the cooperatives and that they couldn’t know if the distribution of the income by the cooperative was fair to members. Farmers explained they saw a risk in working with cooperatives as they had to rely on and thrust a small group of people that are in charge and administrates the cooperative and sell all their coffee. (Interviews, coffee farmers, Junín and Villa Rica).

The farmers Rosa-Maria, Julia and Martha said they were skeptic to cooperatives and explained they felt they couldn’t ensure that the directive of the cooperative worked in the favor of the farmers. They didn’t work with a cooperative as they had heard of cooperatives that cheated farmers and profited on the cost of the farmer members many times before. Julia explained that the cooperatives shows financial information and informs its members on gatherings to prove transparency, but still irregularities in cooperatives are frequently reported. Martha explained the empowerment of the farmers or other persons that are chosen to the directive of cooperatives often tend to tempt those persons to use their advantage to enrich themselves. Martha means that many persons that before were poor and later got to be in charge in a cooperative or likewise many times became greedy and cheated their old friends and coworkers.
Farmers mean it is hard for them to compare and see if the prices they get from cooperatives represent the amount that the cooperative has received for the coffee and the price premiums. Farmers report that it is unclear for them if the price they are given plus other benefits are equivalent to the price the cooperative get by the exporter or roaster minus necessary costs for sales and administration. *(Interviews, coffee farmers, Junín and Villa Rica)*.

The farmer Santiago stated, “The cooperative here in our town and many that doesn’t exist anymore has been accused various times for stealing the money from the farmers. The leaders have left cooperatives without anything left in bankruptcy and disappeared with the money” *(Interview, coffee farmer, Satipo, 7 March 2013 14:39; my translation, the real name of the farmer is not Santiago)*. Santiago says he sells his coffee to a private firm that has foreign owners and that he thrust them better than national cooperatives or buyers. Santiago explain he don’t believe foreign private firms cheat farmers in the way cooperatives have been reported doing. Santiago also explain there’s a lot of informality in the work of some cooperatives where the margin and price premiums are used to pay leaders unreasonably high salaries compared to how much is for farmers benefits. Santiago argues that the leaders in the cooperatives many times have new trucks and cars and evidently earn good. “One of the managers of the cooperative in the town has been accused for using the truck that the cooperative had bought for the benefit of all member farmers while also money have disappeared. However to me it seems like that car was bought for the manager from the beginning without the farmer members’ knowledge, funds that disappear usually ends up in the pockets of some manager” said Santiago. *(Interview, coffee farmer, Satipo, 7 March 2013 14:39; my translation, the real name of the farmer is not Santiago)*.

Henrique, a farmer working with a cooperative and organic certification explained that the cooperative inform members about where the revenues earned by the cooperative goes but that it’s not trustworthy. Henrique sees a difference from working in the cooperative but it is not the desired difference that he searches for. Henrique explain that the lack of knowledge farmers like him in remote villages have of what really happens on the coffee market makes it easy for others to trick them. “The associated farmers here are unaware of many things, we don’t know what the cooperative is doing for real, only what they tell us”. *(Interview, coffee farmer, Villa Rica, 24 January 17:11; my translation, the real name of the farmer is not Henrique)*.

Larger and wealthier farmers as Gonzalo and Arnold are not benefitting from improved living conditions and other benefits like logistics, facilities and collective work from becoming organic farmers. They already have a stable economy and better material standards. The disadvantage of organic certification by Gonzalo and Arnold is that it
doesn’t include benefits to motivate them to start growing organic coffee like for smaller farmers. Arnold explained how the price would be the only motivation for him to grow organic but as the productivity falls dramatically the price neither is motivating. *(Interview, coffee farmers, La Merced, 20 January 2013 17:44, Villa Rica, 24 January 2013 09:39; the real names of the farmers are not as mentioned).*

The farmer Francisco explained that the low price and productivity of organic coffee sometimes make it feel worthless to pay the cost of being organically certified. “*Each member has to pay 300 dollars annually to be certificated what becomes increasingly difficult for the smallest farmers.*” said Francisco. *(Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11; my translation, the real name of the farmer is not Francisco).*

Francisco continues as organically certified but is skeptic to the future if the price premiums don’t get better. Francisco explain that the low productivity of organic coffee is a problem even for the underdeveloped farmers that need all help they can in increasing both their productivity and the price they get for their coffee. Francisco as a small farmer explains how the organic certification has made him invest in his plantations and farm but maybe made him lose so far. Francisco says he waits and hopes for better prices as companies and cooperatives have told him the prices will be rise in the future and as his coffee quality increases. *(Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11; my translation, the real name of the farmer is not Francisco).*

Many farmers are influenced from what they are told by cooperatives and firms of the organic certification and make the decision to continue as organically certified despite having problems by the current circumstances. *(Interviews, coffee farmers, Junín and Villa Rica).*

The farmers Aquilino y Leslie reported they only got 20 cent extra per kilo for their organic coffee at the moment and said that is was very low and made almost no difference from working with conventional coffee. Aquilino and Leslie still see advantages working with the private firm but also explain how they see that the extra given for the special coffee stays in the firm and don’t go to the farmer. The firms invest little in the farmers and before they didn’t even send out any type of help, now they at least send technics to teach and train farmers meant Aquilino and Leslie. The private firm neither provided a common processing plant for member farmers but Aquilino explained that they now are negotiating about that with the firm they work with. *(Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned).*

The farmer Lorenzo pointed put that he had big problems with the disease “leaf rust” in his plantations and that the prohibition of the pesticides by organic certification made diseases and plagues a large threat for plants. The disability to use pesticides can sometimes mean huge losses for farmers mean Lorenzo and explain that this
disadvantage of organic certification need a solution. *(Interview, coffee farmer, Chikariako, 6 March 2013 16:21; the real name of the farmer is not Lorenzo).*

The farmer Gonzalo means that as the organic coffee and coffee in general is not profitable enough and the prices are too low many coffee farmers chose to grow coca instead. Gonzalo explains farmers of many agricultural products change to grow coca as the agricultural sector has been neglected for a long time and the farmers are underdeveloped and poor. Coffee farmers see a tempting opportunity in coca growing as its said to be more than 300% more profitable than coffee farming explains Gonzalo. The organic coffee that the government claims to be promoting as an alternative crop to coca to decrease the coca plantations is in the real case not motivating enough for coca growers to change. The coca growing is at the moment rather increasing than decreasing argued Gonzalo. *(Interview, coffee farmer, La Merced, 20 January 2013 17:44, the real name of the farmer is not Gonzalo).*

5.6 What benefits farmers want
Farmers explained they wanted more support from the side of the government to improve the coffee culture in Peru and that the government need to help promote their product internationally. Farmers also mean that much more capacitation is needed to reach more farmers and also the farmers that are not members of any cooperative or inhibited to get certified. *(Interviews, coffee farmers, Junín and Villa Rica).*

Farmers want to be able to sell a product that is more valuable through selling their product with added value by roasting, grounding and packaging or make soluble coffee. The farmers explain that they many times are inhibited to integrate forward and sell roasted coffee by lack of capital, knowledge and buyers. Export tariffs also regulates the access to international markets, also a reasonable amount of coffee is needed to be able to export explained farmers. *(Interviews, coffee farmers, Junín and Villa Rica).*

Problems for farmers to develop also come from the limited technology, infrastructure and high costs, farmers’ want more benefits that can help them grow and improve their living conditions. The informal farmers that are not entitled and don’t have documentation also need help from the government to get papers for their lands in order to be able to get other benefits. *(Interviews, coffee farmers, Junín and Villa Rica).*

5.6.1 Governmental support
To improve the economic situation in Peru that farmers faces the farmers think that big part of the solution lies in the support from the government for the agricultural sector. Farmers explain they need more support in many different ways from the government as help with improved access to credit, better technology and new regulations that favor the small underdeveloped farmers. *(Interviews, coffee farmers, Junín and Villa Rica).*
The farmer Lisbeth explained that the government has to be involved in promoting and negotiating the farmers’ coffee internationally and nationally. Lisbeth mean that as coffee is one of the most exported goods from Peru the government should see more interest in promoting the industry and improving it. Farmers need help to find new markets and ways to sell directly to buyers in foreign countries. The coffee of Peru is also of good quality and need more promotion to be valued higher and receive better prices. Lisbeth explain that Peruvian coffee many times has as high quality as Colombian coffee but the price is much higher for the Colombian coffee. Colombian coffee has more fame and prestige on the market and has an image of quality and taste that the government of Colombia has been involved in establishing explains Lisbeth. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013 13:57; the real name of the farmer is not Lisbeth).

The farmer Jose explains that he also feels there’s lack of promotion from the authorities side and that it is necessary to improve the reputation of the Peruvian coffee internationally. Jose gives an example and explains that it’s easier for farmers from the valley Villa Rica to get their coffee sold even if green or roasted as the coffee from the region of Villa Rica has got a denomination of origin. Jose explained that in Villa Rica they have their market secured by the promotion from the denomination for its quality coffee they are famous for. Where Jose lives they are lack of well-established associations that helps to find market and promote the coffee and therefore need support in promotion meant Jose. (Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose).

The farmer Hernan also explained he experienced the support from the government to be insufficient and that he wished the government could understand that the agriculture is one of the most important sectors that cant be neglected. Hernan explained that the country lives from the food that is produced by the farmer but the farmer lives in poverty and distress. Hernan mean the farmers need more support in all aspects, “The ignorance and lack of knowledge together with the bitter attitude many farmers have adopted as result from their current living situation have hampered the development of the coffee industry” (Interview, coffee farmer, Mazamari, 27 January 2013 17:36; my translation, the real name of the farmer is not Hernan). Hernan mean that in other countries farmers get economic support and are protected from competition by regulations and subventions but the Peruvian farmers are disappearing. More farmers move to town in search for other types of work and fathers nowadays tell their sons to do something different than agriculture to supply themselves means Hernan that thinks it’s a shame. (Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan).

Hernan explains he also thought of developing a small facility to also produce roasted coffee with other farmers but that they need more capacitation in how to run a business and how to find buyers of their product. Hernan want the help by the government to
improve the education of farmers and incentives that favors the correct actions by
farmers and promotes economic growth. Hernan mentions farmers also want the help
from the government to establish a better knowledge and awareness of their product on
the international market, as this is not possible by the farmers themselves. (Interview,
coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not
Hernan).

The farmer Franco explains how there are other benefits that they need that are
impossible for them to accomplish without support from for example the government.
Franco talked about how Colombians had come to visit their village to give lectures,
trying to motivate and get farmers to understand that they have great potential and will
get a better life situation by working in the right direction. Franco explained that they
gave examples of Colombian farmers that had improved their living conditions and
become more effective and efficient. However for that to be possible for Peruvian coffee
farmers increased support from government is needed and new regulations argued
Franco. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real
name of the farmer is not Franco).

The farmers form Mazamari expressed that capacitacion from the government to combat
diseases on coffee is needed. “Farmers that sometimes don’t know about all diseases or
what actions to take at an eventual outbreak lose all their harvest,” said Martha. Rosa-
Maria explained: “The government needs to teach farmers how to treat the plagues and
diseases in the best ways as sometimes the lack of knowledge results in that the coffee falls
to the ground and gets wasted” (Interviews, coffee farmers, Mazamari, 27 January 2013
16:54; my translation, the real names of the farmers are not as mentioned). The
capacitacion from the government could be improved from using agronomic engineers
that are specialized on coffee for example explained Martha, Julia and Rosa-Maria.
People that are sent out for capacitacion are many times only technics with more basic
knowledge and when engineers come they’re sometimes forest engineers and not
agronomic engineers explained the farmers. (Interviews, coffee farmers, Mazamari, 27
January 2013 16:54; the real names of the farmers are not as mentioned)

The farmer Jorge meant that the government also could help by giving farmers organic
fertilizers for their plantations since large amounts and good fertilizers as “guano” is
necessary for good production of organic coffee. The guano needs to be transported
from Lima or other cities on the coast and get harder to obtain for farmers explained
Jorge. (Interview, coffee farmer, Chikariako, 6 March 2013 17:16; the real name of the
farmer is not Jorge).

The farmer named Domingo said: “Look in what state the farmer lives, you can see
yourself. This people need an economic support! How much? They can send an engineer
that helps technify the ranch and make sure that at least the house is in conditions for
living. Then we could work in a fair way. You know what, the sons that are studying can’t
even continue their studies because there is no economic support. After secondary school they can’t go higher since we don’t have money to finance their studies.” (Interview, coffee farmer, Santa Rosa de Toterani, 3 mars 2013 13:28; my translation, the real name of the farmer is not Domingo).

The farmer Gonzalo explained that he was part of the former “Café Peru”, an organization for coffee farmers that was about to make a bank especially for coffee farmers “El Banco cafetalero”. Gonzalo however retired in 1986-87 after that the current government decided to nationalize the banks in Peru and caused severe inflation of the currency explain Gonzalo. “The government took the 40 million dollars that the coffee bank had at the moment and retained it, three years later they returned it in national currency. However what they gave back in Peruvian soles were only representing 3 million dollars at that time, thanks to the devaluation. All the money was transformed into dust, it disappeared” (Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo). Gonzalo also explained that the government mismanages the country and the errors and corruption of the current and earlier government have scared of foreign investments. Gonzalo meant that many of the former presidents have been wrong persons for bringing economic stability and growth to Peru and the government need to improve their work to help farmers. Presidents have been former military leaders and people with lack of education in economics, politics and how to manage a country. Gonzalo explains that it’s a huge problem when foreign investors fear to enter the market since they are the ones that can help farmers grow and industrialize and create more jobs. “If the country becomes like Venezuela, who is going to want to work or start a business? If later the government comes and nationalizes it and takes everything? (Interview, coffee farmer, La Merced, 20 January 2013 17:44; my translation, the real name of the farmer is not Gonzalo).

5.6.2 Forward integration
The farmer Jose explained how he would like to be able to do what Brokers that live from matching buyers and sellers does. The coffee farmers are often unaware of the current stock prices and how to find buyers through using technology and then export the product and so on explains Jose. Brokers earn very good money for only establish the contact between the cooperative and a buyer and charge a price for every bag of coffee that is traded explains the Jose. He means that it would be favorable and beneficial to them to get rid of that costs the brokers implies and be able to put their coffee directly for sale to international buyers. (Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; the real name of the farmer is not Jose).

Hernan explained how he and a group of farmers in Mazamari and surrounding villages had plans on adding value to both their cocoa and coffee. Hernan explain they want to roast and package the coffee but has not started yet as they lack capital for necessary investments. Hernan sees forward integration as a key to be able to get better margins
on the coffee. *(Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan).*

The farmer Gonzalo said they already started producing roasted coffee and in that way producing a product with aggregated value. The roasted coffee are sold directly to consumers on the Peruvian market but is not yet exported explains Gonzalo. He however mean farmers are inhibited to export roasted coffee in various ways, the foreign countries protect their own national companies with high import tariffs on roasted coffee and the competition is intense. Gonzalo explains that he believes that industrialization of the coffee production in Junín and access to better technology is the way to improve living conditions and improve farmers’ economy. *(Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).*

The farmer Henrique that was interviewed in the town of Villa Rica where the coffee production has taken one more step in industrializing explained that their town had a coffee roast where different producers could roast their coffee collectively. The farmer Henrique explained that many farmers in Villa Rica had therefore integrated forward and had their own brands of roasted coffee that they sold in stores in Peru and sometimes also in foreign countries. Henrique still didn’t produce any roasted coffee as he had insufficient amount of coffee and a very limited economy to make investments he explained. Few farmers sell roasted coffee compared to the ones still struggling with small plantations, producing raw material in and around Villa Rica explains Henrique. Using the roast in town means costs as does packaging, storage, transport and shelf space in stores means Henrique. *(Interview, coffee farmer, Villa Rica, 24 January 17:11; the real name of the farmer is not Henrique).*

Cooperatives still sell through intermediaries many times and not directly to roasters explained Renzo, Gerardo, Renato and Mario from one of the cooperatives in Junín. They explained that it would favor the cooperatives members to integrate forward and incorporate the work of several intermediaries into the operations of the cooperative. The farmers explained that preferably the cooperative would produce the finished end product, roasted coffee. The cooperative the farmers worked for had started to roast coffee at small scale and sold roasted coffee on the national market but still sold the majority of coffee as green beans. *(Interview, coffee farmers, La Merced, 11 January 2013 18:12; the real names of the farmers are not as mentioned).*

### 5.6.3 More extensive capacitation

More capacitation in how to plant coffee and fertilize, prune, clean and manage plantations is necessary as many farmers still lack that knowledge. Farmers that are not reached by cooperatives or private firms still work with primitive traditional methods. *(Interviews, coffee farmers, Junín and Villa Rica).*
The farmer Maria had a very small plantation far from town and explained that she had not got any capacitación or training. Maria meant that she could not work with certification as she produces too small amount of coffee, which makes it unprofitable. Maria explained that the government has been doing capacitación around Pichanaki in different valley were farmers live but there’s still many that don’t have got visited yet. Maria explains the government makes much promises and promotes many campaigns to improve the agriculture but never realizes the projects and steal the money that were ought to benefit farmers. (Interview, coffee farmer, Valle Hermoso, 6 March 14:34; the real name of the farmer is not Maria).

From neglecting the agricultural sector much coffee and other crops gets lost explains Jose. Jose explains the farmers are important and improving the agriculture of the country will lead to greater economic wins for the country as a whole. Jose had got capacitación from a friend that were agro engineer and had tidy and well-managed plantations. By observing the difference to other plantations with improper management it could be seen that much work in capacitación is still needed for underdeveloped farmers. (Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose).

5.6.4 Tax relief for coffee farmers
The farmer Gonzalo pointed out that the taxes paid by farmers should be lower as they get little in exchange for what they pay. Gonzalo explains that the farmers drink the water from the rivers and live by the nature. Other industries that are causing more damage to the environment and use more tax money like mining should pay more taxes than farmers explained Gonzalo. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).

The farmer Domingo said: “The government does little for the farmer but lives from them, the farmer should be valued higher, yes or no? Without the farmers there would be no fruits.” (Interview, coffee farmer, Santa Rosa de Toterani, 3 mars 2013 13:28; my translation, the real name of the farmer is not Domingo). Domingo explained that the farmers pay the government both by producing coffee that is highly valued and one of main exports of Peru that creates work for a lot of people and by paying taxes. At least the farmers that are struggling and poor should get a tax relief explains Domingo. (Interview, coffee farmer, Santa Rosa de Toterani, 3 mars 2013 13:28; the real name of the farmer is not Domingo).

5.6.5 Infrastructure and technology
The farmer Rosa means that she and many other farmers lack proper infrastructure and technology on their farms. She explains the current infrastructure is a big problem for
her and neighbors, especially during rain season when access to town is limited by rains for days and sometimes weeks. Rosa explains the whole road use to collapse during rain season and need to be rebuilt afterwards. Rosa explain that the road was much worse before but that the farmers themselves had been responsible for improving the road that still needs lot of work. *(Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; the real name of the farmer is not Rosa).*

The farmer Franco also explained that the road between his farm and the town before only was a small path and the farmer brought the coffee to town by donkey or wheelbarrow. At that time it took one entire night to get to town and many times the farmer could not bring all his coffee at once and needed to walk several times explained Franco. Franco explained that the new road that still wasn’t very good had been built halfway by the cooperative that Franco work in and the other half by the community of farmers where Franco lived. The road still needs improvements meant Franco as it needs constant maintenance as rains and landslides damage it. *(Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).*

Rosa explained that watering systems could be beneficial in dry periods for farmers and that more efficient pesticide and fertilizers that are environmental friendly are needed to motivate farmers to grow organic coffee. Not only capacitation is necessary to further get better but also new modern agricultural technology means Rosa. *(Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; the real name of the farmer is not Rosa).*

The farmer Jose explains that farmers in Junín need to improve the technology in the coffee farming to be more competitive. Jose means that the farmers in Colombia are more advanced and have access to better agriculture technology thus have better productivity. Jose explained that he started to look into new varieties of crossbred coffee plants to protect against diseases. "Now we also started to look at other varieties of coffee since the traditional plants we cultivate are very susceptible to diseases, but in production and quality our coffee is good. We now look at new plants as Costa Rica-95 and gran Colombia. We want to see if using other coffee plants could be more rentable." *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose).*

5.6.6 Qualification and documentation to become entitled

Another thing farmers mentioned they needed help with was getting titles and documentation to help them get the ability to get loans and develop their business. Farmers that have documents and title for their lands get loans but the informal farmers that may have been cultivating coffee for many years and still have no formal paperwork are disabled. *(Interviews, coffee farmers, Junín and Villa Rica).*
The farmer Alfredo explained that to get loans farmers need to have a document for their ranch called “titulo toterado certificado de porción” to show the bank: “I don’t have access to credit as I still not have a title for my lands, to get credit you need to be entitled. I got my lands from explorers that settled in a desolate valley and they offered me the land for free in change for a small contribution to the new community.” (Interview, coffee farmer, Satipo, 7 March 16:11; my translation, the real name of the farmer is not Alfredo).

Alfredo explained that it is legal to occupy new uninhabited lands if it is done by a group of people that forms a set of leaders containing a regional board of directors with a president and fiscal. The new lands can then later with the help of the local regime get entitled by the government to get the ability of credits among other aids given to formal coffee farmers explained Alfredo. (Interview, coffee farmer, Satipo, 7 March 16:11; my translation, the real name of the farmer is not Alfredo).

5.6.7 New certifications and solutions with better benefits and studies on the farmers situation

The interviewed farmers expressed that they find it favorable and necessary that studies are made on the certifications and solutions to help coffee farmers improve their living situation. Farmers said they find it enhancing and educative to participate in the interviews and said it gave them ideas and knowledge that they find useful.

The farmer Franco said: “The conversation from taking part in this interview has helped me to see our problem from other aspects and understand some other underlying causes. It is always beneficial for us farmers and we are willing to exchange ideas in this way to also find new ideas and opportunities to get better.” (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; my translation, the real name of the farmer is not Franco).

Hernan explained that farmers want to be more competitive and desire that people inform the world about the current situation the coffee farmers are facing. Hernan mean that in the search for better benefits farmers’ situation has to be taken into account and the benefits from certifications need to be redirected and distributed differently. (Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan).

Aquilino and Leslie mean that certifications could change in many ways to better benefit farmers. They explain how today the organic certifications are very demanding and have very many requisites that could change a little bit to benefit the farmer while at the same time working for the environment. Aquilino and Leslie however agree that the norms of taking care of the environment are good and they like that part but the price would need to be better by the certification. (Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned).
Jose also explains how he heard that companies in industrialized countries don’t believe in the organic farmers and distrust exists against the farmers as farmers have been breaking the rules of the certifications also. “The foreign firms are suspicious and don’t believe you are organic when you claim that you are” said Jose. He explains that firms now search for special coffees with other labels and coffee with high quality instead of organic. (Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose).

The farmer Renzo explained that a new label called “Q” for quality has started to be used to guarantee the quality of the coffee. Renzo explain that for the coffee to be Q graded it need to be tested by tasters (catadores) and quality controlled in a laboratory but had no further experience from the label. Renzo had heard of the new label but had not sold any coffee market with the “Q” label. Renzo explain he and other farmers searched for labels that are better tailored for their own needs. Renzo also explained he heard of another new label called “the small producers’ symbol” that he mean is going to be interesting as it is said to be more customized for the small coffee farmers. (Interview, coffee farmer, La Merced, 11 January 2013 18:12; my translation, the real name of the farmer is not Renzo).

5.7 The access to credit by organic farmers

The farmers Renzo, Gerardo, Renato and Mario explained in the interview that they and most farmers were able to get credit from the bank or somewhere else but that the loan conditions were the problem for farmers. The farmers explained the amount of a loan is based on the assets of the farmer and therefore gets very small and further many farmers only have access to 1-year or shorter loans. (Interview, coffee farmers, La Merced, 11 January 2013 18:12; my translation, the real names of the farmers are not as mentioned).

The farmer Franco explained that the access to loans from banks was the same for farmers that weren’t certified organic as for those who were. The farmers as him that are members of a cooperative can however get credit in form of prepayments from the cooperative which can benefit members. Franco however means that the credits are small and short and therefore are hard to use for long-term investments. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco). Even if there’s access to loans many farmers don’t take credit in fear of getting debt and as the conditions are unfavorable explain Maria. Maria stated: “I have not taken any loan yet as I have not been growing for too long but I’m also afraid of taking a loan and it’s not anything I’m thinking of at the moment” (Interview, coffee farmer, Valle Hermoso, 6 March 14:34; the real name of the farmer is not Maria).
The opinion is different between farmers, it seems many don’t really know how much interest they get on loans and how to get affordable loans. Farmers mentioned that there are many farmers that don’t work with a cooperative, association or firm and don’t have documents for their land and therefore don’t have access to credit. (*Interviews, coffee farmers, Junín and Villa Rica*).

### 5.7.1 Pre-harvest payment from cooperatives and firms

The interviewed farmers that worked together with a cooperative or firm could get prepayments for part of their harvest to be able to pay for fertilizer and labor for the current campaign. (*Interviews, coffee farmers, Junín and Villa Rica*).

The farmer Santiago explained that the firm he works with gives pre-harvest loans with an interest of 1.5% and that the loan needs to be paid back at the time of harvest. The duration of loans thus never gets longer than a bit more than a half-year or sometimes almost a year. Sometimes that’s a problem explains Santiago, that want to be able to get longer loans to invest in new and improved plantations. As the loan from the firm only are for the yearly harvest the farmer need to pay back his loan at the moment when he sells his harvest and the opportunity to invest gets lost explains Santiago. (*Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago*).

Franco explained he got loans from the cooperative for the pre-harvest but that also the cooperative could give loans to members for medicine and healthcare in emergency situations. Franco mean that the loans from cooperatives are small and charge an interest that makes him trying to avoid them as he feel they are useless for him that has small lands and don’t need to pay much labor force in harvest times. (*Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco*).

### 5.7.2 Banks

The farmers reported to be able to take loans either from private banks or from the governmentally owned bank especially established for farmers called Agrobanco. (*Interviews, coffee farmers, Junín and Villa Rica*).

The farmer Hernan explained that a long time ago another bank similar to Agrobanco existed called the “Banco Agrario” that collapsed and ceased to exist. After the collapse of “Banco Agrario” there were no credit support for farmers by the government for a long time explains Hernan. Now the government has started to give loans to farmers again through this new bank that some farmers still aren’t aware of mean Hernan. (*Interview, coffee farmer, Mazamari, 27 January 2013 17:36; the real name of the farmer is not Hernan*).
5.7.3 Loan conditions

Private banks have higher interest rates than Agrobanco explained Francisco. Francisco explained that Agrobanco could help in getting loans to machines for cleaning and working in your plantations and pre-harvest loans as cooperatives and firms also give. Francisco mentioned he had an interest of 1.2% or 1.5% on a loan from Agrobanco and he mentioned that other private banks might give interests of 8-10% on the loans. *(Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11, the real name of the farmer is not Francisco)*

The farmer Martha explained that the interest was higher for her, somewhere around 4% or 5% from Agrobanco. *(Interview, coffee farmer, Mazamari, 27 January 2013 16:54; the real name of the farmer is not Martha)*

The farmer Jose claimed he had got loan from Agrobanco with an interest rate of 2.21% and 2500PEN for each hectare but the loan were only for the yearly campaign and had to be repaid after harvest. *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose)*.

The farmers Renzo, Gerardo, Renato and Mario said Agrobanco gives about 3-4% in interest rate and explained that the approved amount of the loan depend on how many quintals of coffee the farmer produces disregarding if from Agrobanco or a private bank. Interest rates, amounts and payback periods vary much depending on the farmers’ situation and wealth explains the farmers. Agrobanco do give loans for longer periods than a year and at lower interest rates for farmers, however the loans are limited and barely help, as they are insufficient for doing significant investments explains the farmers. To get a loan analysts from the bank comes to see how much capital the farmer have and what production they are capable of, analysts then make a study on how much they can approve for a loan that many times get very small mean Renzo, Gerardo, Renato and Mario. *(Interview, coffee farmers, La Merced, 11 January 2013 18:12; the real names of the farmers are not as mentioned)*.

It is hard to use loans to grow as the small farmers have very few hectares and low yields as they lack knowledge of proper management of their plantation. The loans then get very low and are not sufficient to make meaningful investments. *(Interviews, coffee farmers, Junin and Villa Rica)*.

Another condition that was mentioned by Alfredo and discusses earlier was the need to be entitled for getting access to credit. Alfredo explains that many of the smallest and most underdeveloped farmers are farmers in the informal coffee sector that don’t have documentation for their land and therefore don’t meet the conditions for credit. *(Interview, coffee farmer, Satipo, 7 March 2013 16:11; the real name of the farmer is not Alfredo)*
5.8 Organic farmers strategic planning and decision making

The current situation and circumstances on the coffee market where prices are low and quality demanded by buyers is high makes the farmers look for alternatives to be more competitive. Farmers explain that they want to earn sufficient income to improve their lives and not only earn just enough money to cover their costs of staying alive. Coffee farmers means that as the situation has got worse for them they struggle harder to make an income that can sustain their family. *(Interviews, coffee farmers, Junín and Villa Rica).*

5.8.1 Producing organically certified coffee as strategy

The farmer Rita explained that before the choice to grow organic coffee and get a certification was very popular and also rentable for farmers. Farmers that could afford and had the ability to use chemical fertilizers still grew organic coffee and followed the guidelines, as it was more profitable explains Rita. Rita explains that when organic certified farmers were increasing dramatically in the region some years ago she saw organic farming as the future strategy and the obvious choice for her ranch. Now she doubts if the organic certification makes any profit, as prices and productivity are low. The organic certification have changed and the farmers that have organic certification are making desperate tries to earn more money explained Rita. Instead of working in favor of the environment some organic farmers have been reported to use substances prohibited by the certification, disqualifying them to sell their coffee as organic explains Rita. *(Interview, coffee farmer, Satipo, 27 January 2013 11:41; the real name of the farmer is not Rita).*

The farmer Jose explained the more environmental friendly way of working organic was actually contributing him and his family before as it allowed them to develop their farm and house from increased income. Jose explains he and his family are organically certified and that the decision to start organic growing has taught them important things that they didn’t know before. Jose explains, "Even if we wouldn’t work with organic coffee later we would still apply the principles of caring of the nature, clean wastewater and do reforestation" *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose).* Jose says that the motivation to cultivate organic coffee is small now and that he and his family search for better options and strategies to become more competitive. Jose also means that the organic certification is losing its importance as it has become less trustworthy because of irregularities from both buyers and sellers sides. *(Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; the real name of the farmer is not Jose).*

Franco explains that the organic certification has benefitted him and that the strategic choice to start working with certification in the cooperative has helped him to increase his productivity and the price he gets. Franco had improved his living conditions, as he didn’t know how to manage his plantations correctly before he decided join the organic certification to get capacitacion and improve. Franco was offered to get certified and saw
benefits and deliberately decided to get organic certification to improve his mismanaged plantations. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).

Franco explains that the cooperative had mentioned the problem of buyers that don’t thrust the organic certification as much any more and therefore pay less for organic coffee. It’s said that buyers don’t think the organic certification is enough evidence for that farmers work in accordance to rules and norms explain Franco. The weakening of the certification makes many farmers chose other strategies than organic farming explains Franco that also have neighbors that chose other strategies before organic. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).

Gonzalo explains that he isn’t certified as he is thinking strategically and is convinced of that the organic certification isn’t good for him in itself but that he finds it favorable to work in environmental sustainable ways. Gonzalo explains that he want to care for the environment and the place he lives on but also want to have an income that covers the costs for his family. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).

5.8.2 Cooperatives and firms strategy of encouraging organic certification

Even if the motivation to get organic certification doesn’t exist in the farmer it exists in cooperatives, firms and other organizations explains Gonzalo. Gonzalo explains that he knows farmers working for cooperatives and knows how the cooperatives operations looks and that organic certification incentivizes cooperatives to recruit more members. Gonzalo explain that as the cooperatives get paid price premiums for each bag of certified coffee the cooperatives still see much more money in certifying farmers and recruit more members to the cooperative. Cooperatives shall use price premiums for member farmers to give them better prices and to invest in facilities that benefits all certified members, something that is hard to control and ensure explains Gonzalo. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).

The farmer Jorge explains the cooperative he sold coffee to also be eager to certificate farmers and encouraged him and his family to start growing organic coffee. “We found it beneficial for some of the capacitation we got but as we are situated at very low attitude the organic farming didn’t yield anything”. That organic cultivation maybe weren’t suitable for us wasn’t taken into account by the cooperative when certifying us explained Jorge. (Interview, coffee farmer, Chikariako, 6 March 2013 17:16; my translation, the real name of the farmer is not Jorge).
The firms and cooperatives that certify farmers may don’t understand the consequences that it brings to some farmers explain Aquilino and Leslie and that it’s the way the certification works that needs to be revised. The organic certification could be designed to be better suited for farmers and the context that they encounter themselves in. The certification seems to be adapted to be attractive and beneficial only for a certain type of farmers but should apply to a wider public explain Aquilino and Leslie. (Interviews, coffee farmers, Toterani, 3 March 2013 15:28; the real names of the farmers are not as mentioned).

Arnold explains that the motivation and interest of cooperatives and firms to recruit more certified farmers is in conflict with the real needs of farmers. Coffee farmers that lack knowledge in how the organic certification can affect them get influenced in their decision making by the cooperatives and firms recommendations to grow organic explains Arnold. (Interview, coffee farmer, Villa Rica, 24 January 2013 09:39; the real name of the farmer is not Arnold).

5.8.3 Decision making
Farmers that participated in interviews were not capacitated and trained in making advanced calculation and comparing projects by the cooperatives or someone else. Farmers explained they make simple calculations to be able to compare costs and revenues and make assumptions for deliberate choices. (Interviews, coffee farmers, Junín).

The farmer Gonzalo was aware of some business administration and did compare different projects and made strategic decisions in his operations he explained. Gonzalo meant that he didn’t do the accounting himself but had an accountant employed to take care of that. Gonzalo mean that he compares the figures and results of the accounting and that he take decisions based on that information. It’s not as important to keep records for the smaller farmers that have fewer transactions to keep track of means Gonzalo. Smaller underdeveloped farmers should however benefit from learning to include costs for their working time and depreciation of assets as processing plants and new tanks for treatment of wastewater in their calculations to get a correct measure of the net profit. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).

Franco explains that he does calculations to make decisions and to compare what is most profitable. He mean that he counts the costs for fertilizer, transport and workforce that is hired and make his decisions after comparing the costs with revenues from selling the coffee. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).
The farmer Henrique explains how he lacks the ability and knowledge to compare different projects and investments from an economist’s point of view to evaluate which decision is the most profitable. Henrique makes conclusions about which are the best options but still says that he and his family base their decisions only on the empirical knowledge they have as simple calculations and common sense. (Interview, coffee farmer, Villa Rica, 24 January 17:11; my translation, the real name of the farmer is not Henrique).

Some simple strategic thinking as motivating employees is used by most farmers explain Francisco that mean that it’s common that farmers give small incentives to keep employees loyal and motivated. Francisco explain that some farmers also chose to pay for leaders that manages the workers and control the harvest and that it could be seen as a optional choice. Employing leaders may be profitable for some farmers as they can ensure quality of the harvest and exclude some extra work while others may not need leaders or find it unprofitable explains Francisco. (Interview, coffee farmer, Pichanaki, 4 March 2013, 17:11, the real name of the farmer is not Francisco)

The farmer Santiago explains that most farmers give some motivation for workers as higher payment or extra meals apart of the ten meals that may be included in the agreement. Santiago mean that the farmers nowadays have been forced to think more strategically by the falling prices that makes it harder to continue to grow coffee as farmers done before for generations. Strategies of farmers have emerged from learning from earlier mistakes they or others they know made. Santiago explain that he also has to be adapting continuously as the price of coffee changes drastically and as a farmers you want to grow only coffee when the prices are high but alternative crops when the price goes down. (Interview, coffee farmer, Satipo, 7 March 2013 14:39; the real name of the farmer is not Santiago)

8.4 Diversification
Gonzalo that has better economic conditions than the majority part of interviewed farmers explain that diversification is must in his opinion. Gonzalo explain that since the coffee prices are very volatile and also the yield it’s necessary to have something to fall back on. Gonzalo has been fortunate to be able to invest in other businesses as real estate and a hotel but explain that from the beginning when he only was a farmer he still cultivated both citrus fruits and coffee to have two different incomes. Gonzalo explain that at the moment he only grows coffee and has his hotel and construct houses for sale since the citrus fruits are dying and don’t give any fruit no more. Gonzalo explain he has adapted to the circumstances but before the citrus plantations were an important income for him but he had to abandon that business. Gonzalo explains that the fungal disease called “Alternaria Alternata” has largely affected the citrus plantations after the former president Toledo used the fungi to eradicate coca and spread it on the coca fields. Gonzalo explain that that irresponsible act of fumigating with the disease that also affect citrus has made the whole valley of Chanchamayo to suffer as they are mayor producers
of citrus fruits. Gonzalo explain the risk is too big when depending only on one crop as a farmer and that diversification is something that can disperse the risk. Gonzalo also explain that organic farmers should have an increased need of diversifying as their crop can get lost easier and yields less. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).

However not only the larger farmers had started to diversify as a farmer called Marcelo explain that he only has 1 hectare of coffee and that he also started to grow 0.5 hectare of pineapple. Marcelo explain that he also saw the income from the small coffee plantation he had to be irregular and unreliable as it only was harvested once a year. Marcelo explain that to have a more continuous income pineapples are good as they give fruits often about every three weeks instead of once a year as the coffee. Marcelo also had an old car that he used to drive people to town and other places to earn another extra income he explains. (Interview, coffee farmer, San Juan de Toterani, 8 January 16:35; the real name of the farmer is not Marcelo).

Renzo, Gerardo, Renato and Mario explained they also grew other crops apart of the coffee they delivered to the cooperative. Gerardo explain he grows bananas and pineapples that he means can protect him against sudden price falls of the coffee or bad years with low yields. Mario said he had some citrus trees that were producing poorly but also pineapples and bananas as he explains the most farmers in the region grows. Mario explain that he also has some avocado but that it’s very little and for the own consumption and for the workers. The farmers together explain how the organic farmers almost always have some bananas, avocado and other fruit trees planted together with the coffee but that its to provide shade but not for sale. Renzo explains that the fruit trees for shade are planted in the coffee plantation on high altitude where fruit trees produce poor yields and therefore these trees aren’t suitable for producing fruits for sale. The trees that we have around our coffee are mostly for us self to eat and the workers that are working with the coffee explain Renzo. The farmers explain that they have their alternative plantations on other land on lower altitude where they produce their fruit that goes for sale. (Interview, coffee farmers, La Merced, 11 January 2013 18:12; my translation, the real names of the farmers are not as mentioned).

The farmer Maria explain that she has her small store that she opened in the village as an extra income but that still the store brings in a very limited amount of money to her family. Maria explain that she tries to do her best to be able to sustain her family and that she has children that need to eat and that the store helps her with some income more frequently than the coffee to buy necessary things for the children. (Interview, coffee farmer, Valle Hermoso, 6 March 2013 14:34; the real name of the farmer is not Maria).

The farmer Lisbeth explained she and her family also had diversified into pineapples and citrus fruits that they grew on terrains on lower land as they saw the organic coffee
to be insufficient. Lisbeth is organically certified and also has some bananas and avocado as shade trees she explains that provide food. Lisbeth also explains that they grow their own potatoes and other food as well but that the mayor businesses they are doing is the Pineapples and Coffee. Lisbeth also had made a small store of a part of her house where she and her family sold some basic groceries. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013 13:57; the real name of the farmer is not Lisbeth).

The farmer Domingo only had land on high altitude and explained that he had started to cultivate a small part of another variety of bananas that are suitable for high altitudes. Domingo also explained the organic coffee is risky to depend on and that the production was low and the money from the coffee was insufficient to survive on. Domingo explain that the coffee still is their main business that they want to focus on and that the income the bananas bring is much less than the coffee but still help them. Domingo explained: “The bananas are like a sustenance, a help to support our economy, we harvest it every fifteen days or every three weeks, it’s income. The coffee campaigns are only annually.” (Interview, coffee farmer, Santa Rosa de Toterani, 3 mars 2013 13:28; my translation, the real name of the farmer is not Domingo).

The farmer Franco said diversifying was hard for him as he explained he lived in the zone suitable for coffee and not for other crops. Franco explains he also grows some fruits on his lands but that they are for personal consumption or for the workers. “The cultivation of different crops is divided into zones where at my zone only coffee can be grown with good results. I can not take the risk to plant something that maybe later don’t yield anything as I only have land on this altitude. The option is to get new land at a zone where I can plant something else but it would mean a tremendous cost for me to move to another place and settle and acclimatize there.” Explains Franco (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; my translation, the real name of the farmer is not Franco). Franco mean that if he had the opportunity he would most likely be diversifying but his limited economy and land forces him to only focus at coffee for the moment. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).

5.9 Farmers view of Sustainable Development
The farmer Franco didn’t know of the expression Sustainable Development (SD) and what it meant he explained. When he got informed of the definition of SD he agreed that it’s the correct way of working but meant that the economic sustainability was absent in his and many other farmers operations. Franco explained that as he is organically certified he works in environmental sustainable ways but that the extra 0.5 PEN or 1 PEN that the certification gives per kilo is really not covering the costs of taking the responsibility for the environment. (Interview, coffee farmer, San Juan de Toterani, 8 January 2013, 12.24; the real name of the farmer is not Franco).
Participating farmers had many different opinions on what SD is but few gave an adequate explication of the definition. (Interviews, coffee farmers, Junín and Villa Rica).

The farmer Rosa in Peña Blanca said: “Sustainable development is for me to have at least 40% of the land reforested with for example pine trees. Then you have at least one alternative to sell wood if the price of coffee goes down,” (Interview, coffee farmer, Peña Blanca de Toterani, 2 mars 2013 12:47; my translation, the real name of the farmer is not Rosa).

The farmer Gonzalo had the idea that sustainable development was to assure that his sons also would have anything to live from. Gonzalo surprisingly also thought reforestation was a good way of sustainable development. He explains that reforestation is an alternative that yields money in the future that benefits the next generation. (Interview, coffee farmer, La Merced, 20 January 2013 17:44; the real name of the farmer is not Gonzalo).

The farmer Rita explained how sustainable development to her was the development of farmers when they have an economic situation that can support their costs of living. After she got explained more about SD, and that also the environmental sustainability has to be taken into account she explained that she is managing her ranch in an environmentally sustainable. “We don’t clear virgin mountains to plant coffee anymore, today we clean a bit with machete and then plant the young coffee plants. As the plants grows bigger we screen the terrain to make more sunlight get to the plants. We don’t burn the terrains to clean them and be able to plant as before, burning just means that you lose all your organic material and therefore need to plant more trees afterwards for organic fertilization.” (Interview, coffee farmer, Satipo, 27 January 2013 11:41; my translation, the real name of the farmer is not Rita).

Arnold explains that many farmers don’t know what SD is even if the different certifications and labels mostly are trying to promote SD. Arnold explained that SD to him is to take responsibility for both the environment and workers while trying to be rentable in a business. Arnold explains that he believe the lack of knowledge on SD of farmers has to do with the fact that farmers search for getting certified to get benefits as higher price and increased income. In the west and the industrialized consumption countries people relate the coffee labels and certifications with SD and improvements on all three aspects of SD. (Interview, coffee farmer, Villa Rica, 24 January 2013 09:39; the real name of the farmer is not Arnold).

The farmer Jose explains he and his family want to work according to SD and that it would be favorable for them. Jose explains that it’s hard to include all aspects of SD as the environment, the social responsibility and economic sustainability at the moment as farmers still struggle to keep their economy together. He explains that little SD is seen in the region as little economic and social sustainability can be witnessed. Few farmers are
doing well and take care of the environment and workers at the same time explains Jose. Jose explains that the certified farmers are environmentaly responsible in the fertilization and management of their plantations but mean that the expansion of plantations still hurt the environment. Jose said farmer that need more land just clear virgin mountains and burn it to later establish new coffee plantations. Jose explains that the forest is getting lost and nobody is controlling that impact on the environment of organic farmers. *Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; the real name of the farmer is not Jose.*

Jose could think of many alternative ways of SD other than following the guidelines of the certification. Jose explains farmers without the organic certification also can clean wastewater, use less dangerous chemicals and wear safeguard while fumigating. The problem however is that it’s not possible for them to work in sustainable ways apart from the certifications explain Jose. Jose explains that it’s because of their situation of being poor and having such a small income. "Who can invest in their workers and the environment without any money to invest? The costs that it takes to work responsibly in all aspects need to be covered by money from somewhere" *Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; my translation, the real name of the farmer is not Jose.* Jose explain that it is the foreigners that buy their coffee that decide if farmers are going to work in sustainable ways as he and other farmers follow what the customers demand. Jose means they work with organic certification as it was highly demanded before and the price was good, not specifically to care for the environment. *Interview, coffee farmer, Peña Blanca, 2 March 2013, 16:00; the real name of the farmer is not Jose.*
6 Analysis

This chapter presents an analysis using the theoretical framework to analyze the primary and secondary data in order to answer the research questions of the study.

6.1 How do the farmers in the region perceive “organic standards” and, how do the standards and requirements relate to the farmers own needs?

6.1.1 Sustainable development by organic certification perceived by coffee farmers in Junín

Byrch, Kearins, Milne and Morgan (2009) explains the absence of an established measure of SD makes it impossible to determine if a firm or in this case a certification is working in accordance to SD. Byrch et al. (2009) mean that as its easy for companies to seem sustainable by complying to their own definition of SD the concept of SD becomes meaningless and it becomes easy to “greenwash” unsustainable products and practices.

Farmers had many different opinions and understandings of SD, most farmers was guessing and clearly didn’t recognize the expression. Many farmers had good ideas of actions and operations that could contribute to SD but still didn’t really define the concept of SD. Farmers mentioned that to be sustainable its important to care for the environment and don’t contaminate rivers and the forest. Farrell and Hart (1998) confirm this as a concept of SD called “critical limits” focusing on natural assets such as healthy wetlands, fertile soil and the ozone layer. Farrell and Hart also explain another concept of focusing on balancing economic, social and ecological goals called “competing objectives”. Further it’s mentioned by Docherty (2009) how the Triple bottom line (TBL) concept, developed by John Elkington also emphasizes the interconnectedness and balance between economic, social and environmental factors. Elkington mean that all three; economic, ecologic and social resources, need to be able to develop and grow for a company to prosper (Docherty, 2009). Farmers in Junín perceived both increased and decreased sustainability in the three different aspects of SD as outcomes from working with the organic certification.

The economic sustainability that coffee farmers perceive in working with organic certification: The small and underdeveloped farmers could see an increase in profitability from organic certification but also an increase in the amount of labor required. The most farmers that were organically certified were underdeveloped and lived under poor conditions which explained they’d only experienced improvements in wealth at the beginning after becoming certified. The increased productivity and the income of small underdeveloped farmers were only present temporarily until farmers had adapted organic practices and reached the maximum productivity by organic cultivation of their land. After that point it was hard for farmers to grow and prosper and make savings or investments as the increased income from turning organic was insufficient. Organic certification could only help to increase income and make small
improvements on the ranch at the beginning and only for the poorest farmers. Later the certification limited small farmers to increase productivity and improve their economic condition further by regulating the use of modern agriculture technology. Organic farmers are unable to use commercial fertilizers and substances for disease and pest control that are used by the conventional coffee-farming competitors. The organic certification prohibits the use of synthetic fertilizers and chemical fumigation products what according to farmers limits productivity and harvest yield. According to farmers the certification don’t give a price premium large enough to cover up for the limited productivity and make it economically reasonable to grow organic coffee.

Many small farmers were unknown of the opportunities foregone by choosing organic certification as they lacked knowledge of alternative methods and education in counting and comparing profitability. Many farmers interviewed in the study were unfamiliar with how to evaluate wins on both short and long-term from different projects and methods. Underdeveloped farmers that participated lacked the ability to account for costs in an adequate way to be able to make strategic decisions. The farmers that were able to see drawbacks of growing organic and was or had been certified explained the current price difference between conventional and organic coffee was too small to incentivize organic coffee cultivation. The common understanding of coffee farmers is that it’s economically unreasonable to cultivate organic coffee for farmers with ability to use high intense farming methods instead, using chemical fertilizers and pesticides. In a simple calculation farmers showed how there are large monetary gains from using more efficient cultivation technics with higher productivity than organic growing.

Farmers explained commonly the productivity for an organic plantation with full-grown coffee plants is between 10 and 25 quintals per hectare (qq/ha) of land, sometimes up to 30qq/ha. The productivity of conventional plantations where more effective artificial fertilization is added and more efficient pest control is used was reported to be between 50 and 80qq/ha.

In a comparison “farm example 1” represents a 5-hectare well-managed organic coffee plantation at optimal conditions with a productivity of 30qq/ha. Its annual revenues from the harvested coffee would had been 51 750PEN (132 480SEK or $US 19 734) at the time the price for organic coffee paid to farmers was 7,5PEN/kg in 2012 (30x5x46= 6900 7,5PENx6900kg=51 750PEN). The price farmers mentioned they received for conventional coffee at the same time was about 0,5PEN less. In “farm example 2” a comparable conventional coffee farms revenues are presented. The example of the conventional farm is of equal size as the organic farm but with less management and under normal conditions, producing 60qq/ha. That’s somewhere between low and regular productivity according to what’s common for conventional coffee farms. “Farm example 2” would generate annual revenues of 96 600PEN (247 296SEK or $US 36 846) (60x5x46=13 800kg 7PENx13800kg=96 600PEN). In this case the conventional farm produces the double amount of coffee that the organic farm produces, at the same time
the price for conventional coffee is only 6.7% lower than the price for organic coffee. Even conventional plantations with a limited use of chemical fertilizer with lower productivity than most conventional farms can outperform organic farms in terms of revenues by generating almost the double amount of money. The price for organic coffee would according to farmers need to be as high as two-times the price of conventional coffee to be motivating enough to convert to organic farming. Otherwise the option to increase productivity by using chemical fertilizers is more profitable and thus more tempting.

Farm Example 1
Organic farm at optimal conditions
Cultivated area: 5 Ha
Productivity: 30qq/ha
Price: 7.5PEN/kg
7.5PEN=$US 2.86 (2012-08-13)
7.5PEN=19.20SEK (2012-08-13).
qq=Quintal
1qq=46kg
Revenues: 30qqx5hax46kg= 6900 kg
7.5PENx6900kg=51 750PEN

Farm Example 2
Conventional farm at regular conditions
Cultivated area: 5 Ha
Productivity: 60qq/ha
Price: 7PEN/kg
7PEN=$US 2.67 (2012-08-13)
7PEN=17.92SEK (2012-08-13).
qq=Quintal
1qq=46kg
Revenues: 60qqx5hax46kg= 13 800 kg
7PENx13800kg=96 600PEN

Farmers also explained the organic farming involved higher risks of being affected dramatically by pests and diseases. Farmers that are very underdeveloped and poor can however benefit from the organic certification in the beginning as they may be inhibited to choose technified conventional growing, lacking the ability to finance the use of artificial fertilizers. The farmers could also benefit economically from organic certification if they lacked the basic knowledge of cultivating coffee and could increase their productivity slightly from 5-10 qq/ha to 20-25qq/ha by applying organic methods.

In organic growing the economic resources of farmers stop growing after some time of being certified and economic development is inhibited, there is no sustainability in the economic development after a certain point. Elkington explains economic sustainability is a criterion for SD, something that is not present for organic coffee farmers in Junín (Docherty, 2009). Farmers also report the economic sustainability of working with organic certification further decreases from increased costs. Farmers mean more labor is needed while also requirements and controls demands more administrative work and investments in renovation of the farm to comply with norms. Farmers explain that even if they want to work towards environmental and social sustainability through organic cultivation it isn’t possible to finance. There is no economic sustainability in the organic certification as the work towards more environmental friendly and better social conditions is not profitable or possible to finance.
The environmental sustainability that coffee farmers perceive in working with the organic certification: Farmers are positive in working towards better environmental sustainability and improve their practices and gain knowledge on how to contribute to protect and care for the environment. Farmers recognize the environmental sustainability in working with the organic certification in terms of organic management of their ranches and treatment of wastewater and garbage. The certification requires farmers to work entirely with organic techniques and take care of the environment and capacitates them in how to do it. The organic farmers explained they had shade trees, did reforestation and removed weeds with machete instead of herbicides. Controls of the farmers are done by certifiers to see that certified farmers comply with norms and rules of the certification to only use organic technics and live and operate in environmental sustainable ways. Both farmers that were certified and those who weren’t explained the certification had many regulations to ensure environmental sustainability and they perceive that the organic farming is much better for the nature. Farmers without certification explained they would like to work 100% organic but that the costs and decreased production doesn’t permit them.

The social sustainability coffee farmers perceive in working with the organic certification: Poor Coffee farmers with very low living standards that had become certified explained they could see sociopolitical improvements from getting certified. They reported that cooperatives take social responsibility by offering education to farmers and making improvements to their village. Farmers however also explained that the responsibility taken by cooperatives could not be taken for granted, sometimes the aid or support from certifying bodies was absent, insufficient or inadequate. The sociopolitical benefits by the organic certification were reported to be marginal for the farmers that were less poor and already had improved their living standards slightly. Farmers meant that from getting the organic certification they had increased their living standards by getting a better income and also getting instructions and education on which actions that they should take to improve further.

Farmers mention that the sanitary standards have improved and health issues has been evaluated and remedied by complying with the organic certification. Rules and requisites by the organic certification have improved farmers and people employed at farms work environment by assuring better hygiene and sanitary services. The certification also has drawbacks in the health aspect, as it demands increased and harder work from the farmers’ side. Farmers are needed to do a lot of more work by hand and carry and drag heavier things as larger volumes of fertilizer.

The positive impacts in the social aspect from organic certification are safer work conditions as chemicals and other toxic substances are excluded, access to primitive restrooms that improves sanitary conditions and education. Negative outcomes are the increased labor that includes strenuous tasks for the farmers’ body and increased amount of working hours. Administrative work also increased with the certification and
the work necessary to comply with the norms and rules of the certification. Also quality requirements of the organic coffee increased the necessary work, it gets necessary to harvest various times as only the ripe coffee cherries need to be picked and other tasks to ensure quality emerges. The presence of both negative and positive outcomes related to the social aspect makes it hard to evaluate if the net result of organic certification is positive or negative in social benefits. However even if the social benefits improved the living conditions and wages of organic coffee farmers they were still very limited and also negative sides of social sustainability could be recognized. The low price premiums paid to farmers that make the good choice to grow organic coffee and the still poor working conditions gives evidence of that social sustainability is yet not reached by the organic certification.

**Disturbed balance of Sustainable Development**

The cause of the disturbed balance of SD in the organic certification based on the perception of the farmers is that the economical and social focus is deficient and too much emphasis lies on the environmental aspect. For the company to be successful it needs to take into account all three aspects, firms have to pay attention to all stakeholders as employees, suppliers, customers, the natural environment and the surrounding economic system confirms Docherty (2009). The farmers perceive that they as suppliers don’t receive enough benefits for the work of supplying organic coffee, the natural environment gets prioritized means farmers. The organic certification is made to emphasize the environment but to reach environmental goals in the coffee industry the certification need to attract and convert farmers to organic cultivation. However the economic benefits and social benefits are not attractive enough to motivate farmers to get organic certification and therefore no SD is recognized as the balance between the sustainability aspects has been distorted. Organic certified coffee emphasizes environmental sustainability but to refer to it as SD could be considered greenwashing products that wear the label. The procedures and practices are sustainable from some stakeholders’ point of view but for others as the employees and suppliers like coffee farmers they’re not. The organic certification has gotten too insignificant to attract farmers or keep them following the rules and norms of the certification, as getting certified restricts farmers without a fair compensation.

**6.1.2 CSR projects and organic certification perceived by farmers in Junín**

Both private firms and associations as cooperatives made efforts to help their associated members and certified farmers and took social responsibility to a certain degree. Projects and work made by the cooperatives and private firms that supported farmers in different ways with education and improvements to their living standards could be recognized as CSR. Firms take responsibility for their actions by trying to be environmental sustainable and emphasize and deliver organic coffee but also through taking responsibility for their whole supply chain by providing benefits as transport and capacititation for the supplying farmers. Tuan (2011) explains CSR has become wider and it has become more important to include ethical policies through the whole supply
chain. Tuan (2011) means the firms need to include the suppliers and other stakeholders as well in CSR to be successful while also taking into account the context they operate in and care for and contribute to the society they are surrounded by.

Farmers explain private firms, governmental organizations and cooperatives realize different projects regarding, capacitation, infrastructure, controls, and support for certified farmer families. Farmers also explained the CSR efforts from firms had increased lately and that farmers now get some benefits that the firm can provide. Luckily the CSR efforts had increased meant farmers as before they did little for farmers, now at least capacitation is given which farmers see as the least help they should get as the companies demand high quality product. The farmers state that they need many other things than they are provided at the moment but that they are grateful for any aid they can get.

From what farmers explain the efforts to take environmental responsibility through offering organic certification and to demand organic coffee may be prejudicial for some farmers rather than helping them. The low productivity methods that are taught to farmers’ limits them to develop further and grow. The organic certified farmers explain that even if they receive firms’ support they need different alternatives and solutions to be able to develop and make a recognizable change in their lives. Farmers mention they need benefits that increase their income and lower their costs. Farmers want to integrate forward and have access to better technology lower costs through tax reliefs and better infrastructure. The smaller farmers rather than working with organic coffee needs documentation necessary for loans and better loan conditions and capacitation in high intense farming rather than low intense.

Firms and cooperatives are reported by farmers to help with education for keeping their farm in good conditions and with good hygiene and how to cultivate coffee organically. Farmers mean firms and cooperatives send people to teach them as part of social responsibility work and that some infrastructure has been provided by the private firms and cooperatives. Farmers explain they are in need of improved infrastructure and that the infrastructure made by firms and cooperatives is important but that still much more work is needed in that aspect.

From the interviews it is understood that some of the organic coffee farmers chose to work with the private firms instead of the cooperatives and associations as firms fulfill the needs better for some farmers. Those farmers also meant they thought private firms offered services that were beneficial in a more meaningful way for them. Farmers explain that the firms and their CSR projects don’t relate to farmers needs entirely and that some of the efforts and actions taken by firms as quality controls are more connected to customers’ needs and work systems from western countries. The farmers meant that the firms gave certified farmers’ capacitation, processing capabilities, a better price and also pre-harvest loans as the cooperative did. However the private
firms also provided transport of the product a benefit that farmers valued highly. Firms provided a price to farmers similar or slightly less or sometimes higher than the cooperatives.

Farmers perceive that the larger and the foreign owned firms are the ones that are giving CSR benefits mostly. Small and local collectors and buyers in town don't give any benefits like capacitation and processing capabilities. Tuan (2011) explains how often the lack of financial ability and lack of morality are reasons that make firms to not include CSR projects and social responsibility norms. Farmers also explain how the Peruvian firms many times have less morality and often act informally and many are accused for fraud.

Tuan (2011) also means that firms do work with CSR as they see a correlation of financial performance and social and environmental responsibility and also to comply with laws and regulations. Firms in Junín that buys coffee from farmers seem to encourage the organic certification and organic coffee, making it reasonable to think organic coffee is correlated to higher profit in the firms’ case. The incentive from the firm to capacitate farmers can then also be understood, as it is necessary to comply with rules and regulations of the organic certification. The profitability of organic certification to firms is the contrary than what organic certification means for farmers whose profitability gets limited.

Tuan (2011) also describes the CSR efforts help firms to attract more talented recruits and increasing the reputation of the firm and increase customer loyalty. Firms seem to be successful in attracting better coffee farmers and also in training them and teach them to follow requirements to do a better job and deliver a better product. Creating a base of organic farmers and to do CSR projects to be able to have the organic certification on the coffee makes the firms able to increase their reputation and customers’ loyalty by wearing the proof of the organic label.

6.1.3 Contextualized social entrepreneurship perceived by Farmers in Junín

Lepoutre and Heene (2006) explained that small businesses often don’t recognize their social responsibility issues and therefore don’t include CSR aspects and projects in their operations. Common is also that small businesses lack financial resources to take part in social responsibility projects. In Junín and Villa Rica the smaller firms like merchants and collectors don’t take part in any CSR projects, the context they operate in where they also struggle to make enough money seem to be the reason for not emphasizing SD. Lepoutre and Heene (2006) recommends collective work for small firms that lack financial resources to take social responsibility. However it seems unlikely that the owners of small firms in Junin will improve the social standards for their employees or suppliers before they can improve their own.
According to the farmers' perception, most private firms that buy coffee from farmers except for the collectors and merchants in town do not take part in different operations that can be related to social responsibility or SD. The participation in giving some kind of benefits for farmers was high while necessarily not extensive. Corral et al. explains the context where the firm operates affects the participation in CSR. SME's showed to have a higher participation in Latin America than in Europe what may be result of the present poverty and less governmental support (Corral et al., 2005). Farmers in Junín explain that they desire and wish more support from the governments side to be able to develop and that the poor living conditions and farmers' low level of education make them in need of support. Farmers are marginalized and need the collaboration of the other actors in the value chain of coffee to be able to grow and improve their economy.

The farmers perceive the requirements to get the benefits from the social responsibility by cooperatives, firms and other actors to include difficult tasks and concepts that are hard to understand. Farmers in Junín, Peru explained the organic certification required actions that were unreasonable for them and that they didn't found prioritized at the moment. Farmers in Junín saw the rules of the organic certification as unreasonable and mentioned they were made up by the buyers and consumers that demanded certain quality and organic coffee. Farmers find it hard to make any profit from the organic coffee and therefore question the rules and regulations. Farmers in Junín experienced the organic certification demanded many controls and work procedures they were unused to as keeping economic records. Controls from western certifying agencies give farmers a perception of that the certification is more of a western regulation system than a sustainable work system. As the certification is based upon western work systems and logic some unintended consequences often emerge as Schwartz (2012) confirms. Schwartz (2012) explains negative outcomes sometimes are results while transferring certification standards as they are based on and developed in a Western context.

The labelling of the coffee that is regarded to be a kind of SD did in the case of organic certification in the Junín region not balance the benefits to fit the needs of the farmers. Working with the organic certification gave benefits but the fact of converting the cultivation to 100% organic management was not suitable in the context of the participating coffee farmers. Transferring the standards of the organic certification that is developed by western society shows to be problematic as negative outcomes emerge. No evidence of organic certification being the underlying reason to more developed farmers prosperity could be found. Schwartz (2012) confirms how the differences between the contexts make the actions needed in social support very different and therefore ideas and concepts are not applicable for all situations and contexts.
6.1.4 Organic coffee production perceived by farmers in Junín

Organic growing is seen and considered as sustainable production system with positive outcomes for the environment but with lower productivity and net return than conventional growing (Masuda, 2007). The expressions and statements of farmers’ in Junín showed farmers’ perceived working by organic principles as something positive in terms of protecting the environment and natural resources. The lower net returns by the productivity loss of organic cultivation however makes many farmers choose conventional growing before organic confirms farmers in Junín. Farmers recognize the lower net returns of organic growing that Masuda (2007) mentioned, farmers’ mean the lower productivity is a problem as the price premium given to organic farmers is too small. Farmers explain they would convert to hundred percent organic farming, only using environmental sustainable techniques if the price for organic coffee would compensate for the productivity losses. Farmers explain that they need greater income and social support and need to fulfill these needs before being able to focus on the surrounding environment as well.

Masuda (2007) explained in her study how both conventional coffee cultivation and organic cultivation have their negative and positive impacts on the total regional welfare. Both increasing net returns and reducing chemical inputs are important for the total regional welfare (Masuda, 2007). The study by Masuda (2007) showed the optimal proportions of conventional and organic farming needed to maximize the total regional welfare was 25% organic coffee fields and 75% conventional coffee fields. Those results were for the only coffee producing area in a “developed economy” “Hawaii” where the study by Masuda (2007) was made. The farmers in Junín, Peru stated they were dependent of extra income and higher net returns before environmental improvements and therefore needed more efficiency and profitability, something they didn’t see in organic growing. The proportion of the total area of coffee plantations to be conventional to maximize welfare would logically be higher than 75% conventional plantations in Peru. Farmers in Junín, Peru receive very little compensation for the hard work they perform to produce high quality organic coffee and the working conditions are rough, it’s evident that these farmers has a greater need of higher net returns than farmers in developed economies. Barham and Weber (2012) further confirm that yields and net returns are of greater importance in developing countries. Barham and Weber (2012) describes how the price premiums Mexican and Peruvian small-scale producers get from sustainability certifications as Fair Trade and Organic are insufficient to improve their living standards. Farmers in Junín that had experience from organic growing and later made the choice to change to conventional farming explain how the organic farming isn’t as of now. Valkila (2009) also states the organic certification rather restrain farmers from increasing their income instead of helping them. Small-scale farmers that are converting to organic farming generally looses productivity and yield which is one of the causes that make certified farmers poorer or stay poor (Barham & Weber, 2012; Valkila, 2009). The larger farmers in Junín, Peru produced conventional coffee and were sure about their assumption that organic coffee was unprofitable. The
incentive for farmers in Junín, Peru is to grow conventional coffee if they would have the necessary prior knowledge about conventional and organic coffee farming. Many farmers in Junín still make the wrong decision in trying to find a better alternative to a greater income in lack of knowledge and evaluation to take that decision.

The perception of farmers in Junín is generally that organic farming has too many drawbacks at the moment to be attractive. Still in cases when farmers using low-intensity conventional or traditional techniques convert to organic growing, the education in pruning and fertilization can show an increase in productivity and income. Those farmers still only increase their income slightly and not as much as possible with modern conventional techniques. Valkila (2009) also explain that the small-scale farmers often have little or no education and technology in their agriculture and that for them the organic certification can be favorable. The larger farmers with more technified farms and experience in Junín expressed they wondered what the goal of the organic certification was as it didn't seem to be, “converting as much area as possible to organic growing”. The more experienced farmers also explained they knew organic methods was better to use for the environment and that wastewater had to be treated and therefore adapted procedures from organic growing. They perceived that organic growing is good and something they like to strive for and therefore explained they cultivated coffee with care for the nature. Farmers explained they used less chemical inputs than normal in combination with organic fertilizers but to be able to convert to 100% organic the certification has to search for better ways to meet the needs of the farmers. To attract large and small coffee farmers the organic certification needs to be better tailored for different farmers needs and not only for the farmers without knowledge of coffee cultivation using low-intense, conventional or traditional agriculture techniques.

6.1.5 How organic standards and requirements meet the farmers needs
Coffee farmers in Junín, Peru experience a disturbed balance between the different sustainability aspects and perceive that there is no SD related to working with the organic certification. Farmers can’t see SD in the organic certification because of various shortages of sustainability in the certification while observed from an economic perspective and social perspective. Farmers could see positive signs in the certification at some points where the certification gave farmers support that matched their needs with for example education and guarantee to be able to sell their entire harvest. However the aid and positive sides of the certification were not enough to make organic growing an advantage before conventional coffee growing. According to what farmers in Junin perceived of organic farming it did not contribute to SD as there’s too many downsides in terms of lower productivity and net returns connected to organic farming. The price premiums are insufficient for farmers to improve their living conditions.
The requirements and standards the organic certification imposes on farmers do not meet the farmers’ need of a sustainable or at least, economic development from the farmers’ perception. The organic certification is told to be associated with controls and new additional work tasks and the context the farmers encounter themselves in makes many tasks unreasonable for them. Private firms that buy coffee from farmers apart of cooperatives do work and support farmers that can be linked to CSR farmers find favorable. Transport, infrastructure, capacitation and processing are tasks that many private firms can offer their supplying farmers that favor both organic and conventional coffee farmers. Organic certification in itself is not considered and perceived by farmers in Junín to meet their needs but to be focusing too much on reaching environmental goals. The restrictions of the certification are so extent that it makes it unattractive and unprofitable to adapt organic farming and in the end the certification opposes itself as it makes organic farming uninviting.

6.2 Which are the positive and negative outcomes from organic coffee cultivation when managed in the context of Peruvian coffee farmers in the region of Junín, Peru?

6.2.1 Sustainable development by organic certification in context of coffee farmers in Junín

Most small-scale farmers in Junín, Peru are poor and the area of the region where the coffee is cultivated is very underdeveloped and children, old men and women working the entire day with shovels, rakes and picks witnesses about a harsh and rough life. The farmers often live in very simple houses without any luxury or facilities alike those that today are standard in the western countries. Most farmers in the area have only basic primary or secondary school education or no education at all.

The farmers in Junín, Peru explain they want to move forward in the value chain of coffee and get a greater part of the final shelf price instead of getting the kind of support they receive at the moment. They explain how Peru for a long time and as of now is a raw material producing and exporting country and that the resources are sold without aggregated value and the income from the resources gets into the wrong hands. Farmers want to produce the roasted coffee and sell the final product instead of the green coffee beans, something that requires considerable amount of coffee and capital. The farmers expressed the circumstances has given birth to people being greedy and its hard to thrust anyone, what makes collaboration and organization in order to integrate forward difficult. The context has also brought crime to the scene and there’s a risk of getting cheated in all ways, while selling the coffee, handling money or buying inputs. Farmers explain that for farmers to be able to integrate forward other kinds of benefits and support than those currently available are needed. Farmers explain the support needs to come from the government and also the coffee consuming countries that at the moment
protect their national coffee brands by import taxes and other interventions that affect the ability of farmers to compete.

The Peruvian farmers explained how the organic certification lack SD for farmers in their situation where a better house economy is needed and better social standards. The farmers in Junín mean that they don’t feel working with the organic certification can be linked to SD in their case as negative outcomes emerge in terms of extra labor, administrative costs, and lower productivity that leads to lower income. Farmers also see how a greater susceptibility to pests and diseases emerges from cultivating organic coffee and don’t see how the net result from choosing organic cultivation could be profitable. The farmers see the organic standards as something the western world enforces farmers to follow to qualify as a organic farmer that are based upon western theories and ideals. Byrch Kearins, Milne and Morgan (2009) confirms it exists many interpretations and definitions SD and no officially correct one, the organic certification is however certainly not SD in the context of the coffee farmers in Peru. Byrch et al. (2009) also explain how the businesses and actors that do act responsibly lose their niche advantage, as the definition of SD is vague. Actors that want to seem sustainable “greenwash” products and claim they’re sustainable while they’re not (Byrch et al., 2009). From the statements and experiences explained by farmers in Junín it can be understood that the organic certifications sustainability is deficient in certain aspects.

Farmers mentioned intangible benefits in form of better hygienic conditions and sanitary work environment together with other benefits as education in agriculture and sustainable work procedures. The intangible benefits also include safer work conditions that lead to improved employee morale and customer satisfaction. The costs for the farmer do however increase while working with the certification as the need to hire more labor evolves. The SD of the organic certification and it’s positive and negative outcomes when managed in the present context are evaluated and linked to each of the “Triple Bottom Lines” by John Elkington in Table 1. Elkington meant that for a system to be sustainable the social, economic and environmental resources had to be able to develop and grow, sustainability have to be strived for in each aspect and a firm need to satisfy all of its stakeholders (Docherty, 2009). In the case of the organic farmers in Junín, farmers aren’t able to satisfy all stakeholders neither are the cooperatives or firms buying farmers coffee satisfying the needs of farmers as a stakeholder to them. The drawbacks and benefits of the organic certification managed in the context of Junín are presented in Table 1 to describe the SD of the organic certification in this context.
<table>
<thead>
<tr>
<th>Aspect of Sustainable Development</th>
<th>Positive Outcomes</th>
<th>Negative outcomes</th>
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<tbody>
<tr>
<td>Economic Sustainability</td>
<td>• Price premium</td>
<td>• Low Price</td>
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<tr>
<td></td>
<td>• Increased productivity for low intense and mismanaged plantations</td>
<td>• Decreased and limited productivity</td>
</tr>
<tr>
<td></td>
<td>• Minimum price</td>
<td>• Increased risk and costs of pests and diseases</td>
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<tr>
<td></td>
<td>• Pre-harvest loans</td>
<td>• Administrative costs</td>
</tr>
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<td></td>
<td>• Cheaper inputs (organic fertilizer and pesticides)</td>
<td>• Increased amount of labor needed</td>
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<tr>
<td></td>
<td></td>
<td>• Long control period before getting certified</td>
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<tr>
<td></td>
<td></td>
<td>• Price premiums are handled by cooperatives or firms that only pay a percentage to farmers</td>
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<tr>
<td></td>
<td></td>
<td>• Investment costs</td>
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<tr>
<td></td>
<td></td>
<td>• Fee for being certified</td>
</tr>
<tr>
<td>Social Sustainability</td>
<td>• Sanitary and health improvements</td>
<td>• Mistrust, fear of getting cheated</td>
</tr>
<tr>
<td></td>
<td>• Toxic free, safer work environment</td>
<td>• Corruption</td>
</tr>
<tr>
<td></td>
<td>• Education</td>
<td>• Heavy extra work (large volumes of organic fertilizer)</td>
</tr>
<tr>
<td></td>
<td>• Improved conditions for employees</td>
<td>• Difficult tasks enforced on farmers</td>
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<tr>
<td></td>
<td>• Infrastructure improvements</td>
<td>• Low salary in compensation for the hard work</td>
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<tr>
<td></td>
<td></td>
<td>• Cooperatives get Incentivized to enlist more farmers to the organic certification to earn more money</td>
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<tr>
<td></td>
<td></td>
<td>• False hopes and claims given to farmers</td>
</tr>
<tr>
<td>Environmental Sustainability</td>
<td>• Only organic inputs</td>
<td>• Increased cultivation area necessary to achieve same output as conventional farming</td>
</tr>
<tr>
<td></td>
<td>• Reforestation</td>
<td>• Larger volumes of fertilizer need transport</td>
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<td></td>
<td>• Treatment of wastewater</td>
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Organic certification is in some cases possibly contributing to a sustainable development of farmers, but in a limited manner and to a limited point of the development, as understood from interviews with small farmers. Small farmers that before beginning with the organic certification were very poor and had very low productivity are seen developing sustainable from the organic certification to a certain point at where the development later stagnates. Organic coffee shows to sometimes be good as a first step on the way to improved living conditions for small-scale coffee farmers since it many times means some increased productivity from what they had with traditional methods used earlier. The smallest farmers do therefore increase their income as they get a better price for their coffee and also increase their productivity slightly. The small farmers that before had very few and low costs however also experienced increased costs and expenses for the increased amount of labor, administrative work and fertilizer needed. The sustainability is however still questioned as farmers don’t even account for their own working hours and deduct it at as cost and if they did they would many times barely cover their production costs or have an extremely low wage per hour. Farrel and Hart (1998) explain that developing and developed countries are in need of different things to improve the wellbeing of the people and the development of the country. The developing countries focus more on economic growth and materials possession to improve quality of life and developed countries more on quality of time spent and personal wellbeing (Farrel & Hart, 1998). The organic certification has negative outcomes while managed in a developing country as shown in Table 1 as economic growth is of more importance in developing countries. Farmers in Junín are as Farrel and Hart explained in need of more materialistic improvements and economic growth to be able to achieve what would be SD for them.

6.2.2 Positive and negative sides of CSR linked to organic certification while managed in the context of coffee farmers in Junín

The CSR has today become an important tool for businesses to use in their operations to show their commitment to the environment they are situated in and their employees and other stakeholders (Tuan, 2011). CSR has existed for a long time but has lately become broader and the need to adopt ethical policies has increased significantly. To be successful companies has to take into account the context they are working in and take both environmental responsibility and social responsibility. Cooperatives, the government, associations, private firms and other organizations in Junín carry out responsibility projects. However the offered support is pretty much the same from everyone, and not always adequate. The increased importance of CSR nowadays explained by Tuan (2011) may be what caused the Peruvian government to start supporting farmers and make a few investments in the agriculture. Governmental responsibility in form of CSR is seen by farmers in form of education and capacitation from technics, agronomists or agro engineers to improve farmers’ management of their cultivations as cooperatives do. The farmers however see less capacitation from the
government than cooperatives and other associations or private firms. Farmers mean that the capacitation of farmers made by the government isn’t extensive enough and therefore only reaches few farmers. The government also provides credit to farmers from a national agricultural banc and some infrastructural improvements at some locations as roads and bridges. The roads and bridges were however more often reported by farmers to be built by private firms or with the support of private firms or cooperatives.

The education has helped farmers to improve the quality of life together with other efforts by different entities that can be related to CSR but the lower productivity and limited income makes even outs the improvements. It’s more motivating and easier to increase quality of life by increased income from using modern cultivation methods and technology. As Tuan (2011) explains the CSR has to be customized, taking into account the context to be successful, something the existing CSR initiatives in Junín largely have failed to do.

Negative and positive outcomes were different depending on the location of the farmer and the type of support or CSR project that was spoken about. Some farmers did not find it necessary to get the support associated with organic certification since they didn’t want to work organic since it meant lower profits for them. They explained they wish government and organizations to give different support to help them industrialize. However the private firms and cooperatives that recruit organic farmers finds an incentive to enlist more organic certified members as they can earn more price premiums from organic coffee doing so. This dark side of the organic certification emerges in the context of farmers in Junín from the way the organic certification works. The price premiums and benefits aren’t received by the farmers but by the cooperatives and firms that buys the coffee from the farmer. The farmers may not receive different support, as the incentive for cooperatives and private firms is to convince famers to grow organic coffee.

The flow of the price premium and benefits given by cooperatives to farmers are explained by figure 2 that shows how the organic certifications relation to the farmer looks. The management of the certification is similar while a private firm buys from farmers but then the services and benefits delivered can be a little bit different.

In Figure 2 the relation of certified farmers to cooperatives shows how the idea of price premiums for certifications works to make it simple to identify the weaknesses of the administration of the certification. The leaders of cooperative can easily benefit from member farmers of the cooperatives. The costs for the administration of the certification and exporting the coffee are paid by the price premiums and the difference in price of the FOB price and the price paid to farmers. The leaders of the cooperative could charge reasonable salaries for their work in administration and exporting while giving farmers
prices leading to lower salaries for farmers. The way the certification works can easily be seen having deficient security against fraud and corruption.

The farmers want transparency and the cooperatives do present financial records at meetings for farmers but the lack of knowledge farmers have in economics makes it hard to understand everything. The farmers express that they don’t really know where the money goes, the cooperative shows the costs that have been paid by the
cooperatives money but farmers can never really confirm the information even if they understand it. Earlier scandals and frauds that have occurred in the past have made the farmers suspicious and afraid of getting members of cooperatives. However many farmers that worked in cooperatives could mention positive outcomes as collective work, guaranteed buyer, processing equipment, storage facilities and capacitation from being certified member of a cooperative. The CSR efforts are good for farmers but at the moment the economic growth of farmers’ house economy need to be prioritized. If the price for organic coffee would be higher and the risk of fraud was removed the organic certification would be good and attracting according to farmers and the CSR initiatives received would be a much larger benefit. The negative sides of the CSR projects linked to organic certification are that they are pretty much in vain at the moment as farmers get taught low productive methods while at the same time the price for organic coffee is low.

![Picture 8 The outside of Cooperative Cunavir showing they work with organic and Fairtrade label among others that didn’t fit in the photo.](image)

Private firms were explained to many times have a better financial situation than the cooperatives and therefore offer services that cooperatives couldn’t. The empirical findings shows how firms take responsibility for farmers and are actively taking part in CSR as the coffee farmers could get valuable benefits from them. The benefits that private firms offer farmers is first of all the organic certification and the same benefits as cooperatives offers like pre harvest loans, agricultural education, education for a more
sustainable living and a price premium for the organic coffee. Firms like cooperatives also educate farmers in how to increase the quality of the product and only accept high quality organic coffee. The training and capacitation is not only a benefit for the farmer but something from what the firm may benefit even more than farmers in their search for high quality products and better recruits. Tuan (2011) confirms firms use CSR strategies to attract more talented recruits, something that private firms buying coffee in Junín seem to prioritize more than cooperatives. Other than the benefits farmers can get from cooperatives the larger private firms offers logistics and pick up the coffee at the farmers door, excluding the cost of transporting to town for the farmers. Firms could also many times offer a slightly higher price than cooperatives thanks to their financial advantage. A slightly better price together with logistics offered to farmers many times make the choice to work with private firms more attractive for farmers in Junín.

Farmers in Junín explained the financial support given in form of pre harvest loans from both cooperatives and private firms was good and necessary to be able to have liquidity to pay workers and inputs to the farm during the year until harvest. However farmers explained the usefulness of the loans to be limited as the amounts given and payback times made it impossible to make any larger investments. The loan had to be paid at the time of the harvest and later the farmers explained they had only money left to make it to the next time loans are given for the next campaign. The farmers explain how many take loans every year but to only repay the loan at harvest and work for nothing.

6.2.3 Contextualized social entrepreneurship positive and negative outcomes in Junín, Peru

The contextual factors that Lepoutre and Heene (2006), Corral et al. (2005) and Schwartz (2012) speak of have undoubtedly been some of the main factors for many firms and organizations to take part in CSR in Junín and Villa Rica in Peru. As it lives many poor and underdeveloped farmers that have land in the region firms, cooperatives, organizations and the government make efforts to improve those farmers’ product and agricultural methods. The problem is that primarily organic cultivation and low intense methods are taught to farmers that from their situation are in need of different aid. The distress and poverty that some farmers in Junín and Villa Rica live in make them desperate. From trying to improve with organic coffee and later realizing it only makes a very small improvement some farmers get tempted to undisclosed use some inputs that are forbidden by the certification to increase the productivity. The buyers of coffee have been explained to by this reason have a mistrust against farmers and also other actors that sells coffee.

The participation in CSR and different forms of social entrepreneurship connected to organic certification by cooperatives, firms, government and other organizations has shown positive outcomes in the context of Junín. The profitability other modernized agricultural methods could give farmers is however superior to organic methods and
could serve as a better alternative for developing poor farmer villages. A great commitment by the actors on the market to the communities and poor people could be seen in Junín and Villa Rica, the farmers are however of very large numbers and not all are yet being reached by the aids to support them. The commitment and support by the government was inferior according to farmers in the region, it reached few and was brief. As Corral et al. (2005) explained the context Latin American firms find themselves in and the lesser support from the government leads to an increased commitment by the private firms however the offered services are not always the most suitable. In the case of organic certification the support is misguided much because of the context the farmers that get certified find themselves in.

Schwartz (2012) explained how the attempts to change low-income countries by social entrepreneurs that believe the problems lie in the contextual factors often are developed in the west and based on western context. The reason for that the organic certification isn't suitable in Junín seems to be because of the disability of adapting farmers to the regulations and rules that are necessary to comply with to sell organic coffee on large international markets as US and Europe. Schwartz (2012) confirms unintended negative consequences can emerge when trying to introduce western practices from the industrialized world to underdeveloped countries, as the actions needed are often very different in the developing countries. The organic certification that comply with the demand of consuming countries in Europe and US for organic products makes farmers in Junín suffer from the negative sides organic growing means for them. The leaders of cooperatives and the private firms that buy the coffee from the farmers don’t see the same problem as farmers with the organic certification.

The low price has been explained to be the driving factor that makes it unprofitable to cultivate organic coffee at the moment for farmers in Junín but the private firms and cooperatives naturally prefer trading organic coffee before conventional coffee. As seen in Figure 2 the cooperative receives the price premium for the organic or FairTrade coffee and keeps large part of it to pay of costs associated to running the cooperative. The workers on the cooperative get their salary for their work but farmers associated to the cooperative are not guaranteed to have a comparable income. The cooperatives, firms and other organizations believe and mean the organic coffee is sustainable as it cares for the environment and strive to promote organic growing. Schwartz (2012) also mean that even if the FairTrade certification is working in the favor of the certified entity it shows sides of post colonialism, something the organic certification also shows sides of in Junín and Villa Rica in Peru. It can be seen in Figure 2 how the cooperatives and firms that practically buy the organic coffee from farmers to sell it to the next intermediary aren’t affected by the increased amount of work and lower productivity that organic farmers encounter. The Figure 2 also shows the connection of how cooperatives and firms that certify more of their own farmers earn more money from price premiums and the profit margin they have on the FOB price they sell the coffee for. This makes the certification oppose itself and makes it an incentive for firms,
cooperatives and the government to increase the production of organic coffee while farmers that are well informed don't see any incentive in working with the certification. The situation that emerges brings up the question where the profit ends up from cultivating organic coffee. The farmers report to not see the profitability while cooperatives and firms do, what suggests that the organic certification in this case don't even work in favor of the certified entity but in the favor of others throughout the supply chain of coffee. As Schwartz (2012) means the demand from west makes suppliers in low-income countries as Peru that have customers in western countries to implement standards. The cooperatives, private firms and farmers that are suppliers in Peru see the customer in the west as king and let customers make their own controls and audits and adapt to be able to sell their product as Schwartz (2012) also confirm in the case of FairTrade.

Some negative outcomes associated with the FairTrade certification when managed in the context of a low-income country experienced by suppliers was increased work by new management standards and additional controls that customers demand (Schwartz, 2012). Many parallels can be drawn between the experiences of FairTrade explained by Schwarz (2012) in her study and the experiences from the organic certification while managed in Junín, Peru. The farmers in Junín also expressed that the social responsibility and sustainability work made by firms, associations and organizations in form of organic certification had drawbacks as increased work, difficult tasks and controls. These drawbacks are also reasons for why some farmers in Junín don't get certified like the decreased productivity and low price for organic coffee. The long control period for getting certified is something that farmers in Junín mention as unrealistic for poor farmers, farmers experience that the control period is an additional harm to their economy. Farmers have to manage exclusively organic cultivations for up to three years before being able to be certified and take part of the benefits it involves and receive the price premium for organic coffee. Farmers in Junín explained how it is very difficult while already struggling with the economy to complete the long control period. The control period is regularly three years with exceptions for some cases and during that time the farmer is only allowed to use organic methods while not getting paid any extra for the increased work.

The farmers in Junín are situated in a context where the increased amount of controls made by the certification affects them negatively as they imply extra work and additional costs. The controls by the organic certification also include audits that are made to see the farmers performance and financial situation, the farmers has to fill in a logbook they call bitácora, something many participating underdeveloped farmers find challenging. Additional controls that Schwartz (2012) found in FairTrade could also be seen in the organic certification in Junín and Villa Rica that means new work tasks and adds to the workload of the farmer. Other than the control period of social and environmental standards and the audits the participating organic farmers explained strict quality controls to ensure high quality coffee are made and its hard to live up to
the expected quality measures. Farmers that live on lower altitude and have lower quality coffee get less paid for their harvest.

Farmers and cooperatives explain the use of controls and audits are a response to earlier irregularities and scandals by suppliers as farmers, cooperatives and private firms as Schwartz (2012) also explain was the case with FairTrade in her study. The irregularities has given birth to mistrust explain farmers in Junín, certified farmers have violated the rules of the certification and the cooperatives and firms have misspend and wasted farmers money on interests apart of the farmers, including personal interests. The irregularities have made both farmers mistrust the buyers and at the same time the buyers to mistrust the suppliers. The mistrust by customers and buyers to suppliers make them invest in making their own control systems and audits to control farmers and cooperatives and firms, something Schwartz (2012) also highlights while also mentioning the cost it means for buyers.

The relationship of the farmer to the cooperative that is explained in Figure 2 also shows how farmers can find a reason to mistrust cooperatives, as it is hard for them to evaluate whether the benefits given by cooperatives represent the price premiums. The farmer in Figure 2 can’t be sure of how much money the cooperative and its managers withdraw from the cooperatives collective money for themselves. Like in Figure 2 farmers in Junín had difficulties in assuring not getting cheated, what together with earlier scandals by cooperatives make some farmers having a large mistrust towards cooperatives. It was also mentioned in interviews that some farmers meant they trusted the private firms more than the cooperatives. Farmers generally meant that it was their own compatriots that cheated them and that foreign companies were preferred to work with, as they were trustworthy. The farmers explained the leaders of cooperatives often were farmers that were poor and underdeveloped that now had the opportunity to enrich themselves on the cost of others, something that can be very tempting.

As Schwartz (2012) also puts it the organic certification like other adoptions by foreign businesses can be seen as some kind of postcolonial coercive force that coffee farmers are obliged to follow. The underlying consumptions for the choice of suppliers as cooperatives and firms to chose to work with organic certification don’t seem to be motivated by the wish to take social responsibility as Schwartz (2012) explain. The reason for working with the organic certification more seem to be the demand and need to follow the western certification that have been taught to them. Coercive postcolonial forces can continue to force farmers to choose other methods than organic growing or to follow the rules of the certification until the mistrust by farmers disappear. The mistrust farmers have towards cooperatives and buyers could be disappear if the price premium could go direct to farmers and the farmer could invest the price premium by themselves. Schwartz (2012) explains the demand from customers together with the controls and mistrust makes the western standards and norms occur as postcolonial coercive forces.
It could be understood that that was the case even for the organic certification when managed in the region of Junín and Villa Rica in Peru.

6.2.4 Positive and negative sides of organic coffee production in the context of farmers in Junín

The positive and negative outcomes of the organic coffee production in the context studied are presented in Table 1 according to the sustainability aspects and under 6.2.2 and 6.2.3 where the CSR and outcomes due to the contextual factors are discussed more. The organic production can in the present context of Junín and Villa Rica in Peru not be regarded a sustainable production system as Masuda (2007) mentions it to be. The negative outcomes that emerges in the context and are listed in Table 1 are many and significant and shows that even if the organic coffee production has positive sides the negative sides makes it unprofitable. The context farmers in Junín encounter themselves in makes it more important for them to increase net returns than taking environmental responsibility as explained under 6.1.4. Other agricultural methods are connected to higher net returns than organic and more suitable for underdeveloped farmers.

Valkila (2009) explain the FairTrade and organic certifications rather restrain the farmers from increasing their income instead of favoring them. Farmers in Junín explain they need a job and with reasonable income and not other aids that are believed by customers to be necessary. Farmers confirmed the organic certification restrained their income rather than favored them in some cases. The aid and support certified farmers receive made from a western context is misadjusted to fit farmers in developing countries. Barman and Weber (2012) confirms that bigger yields are preferred to premiums in developing countries and that organic and Fairtrade premiums are not enough to increase living standards of small-scale producers. It also seems to be evident by the empirical data that certified growers stay poor or get poorer as also Barham and Weber (2012) and Valkila (2009) means. However as it was hard to get the correct numbers on exact changes in revenue and costs by working with organic certification it couldn't be determined by exactly how much the profit decreased for a farmer changing to organic growing. The qualitative answers of the farmers in this study however gave a deeper insight into why farmers choose organic certification and how they are affected.

Both the yield and the quality of the organic and conventional coffee farming vary with many other factors than amount and type of fertilizer and pesticide used explained farmers in Junín and Villa Rica. The climate and the altitude play big roles as well as the ground where the coffee is planted, land that have become exhausted from earlier plantations will yield less and need more preparation to support new plants. Exhausted land lack organic material as a result from growing coffee using almost exclusively artificial fertilizers while at the same time not adding any organic material that can become new soil explained participating farmers. The amount of work required from the farmers and workers side is also different for the participating coffee farmers and with
that also the costs. Barham and Weber (2012) explain the yield vary with the amount of management and fertilization, in Junín and Villa Rica it seemed that it was very big differences between farmers yields even if farmers used fairly equal procedures and management. The yield increase resulting exclusively from fertilizer and management that can be witnessed if two plantations on the exact same spot could be compared but otherwise many different factors can make the yields of two different plantations to differ according to farmers in Junín.

The interviews in this study produced similar answers as those achieved by Barham and Weber (2012) and Valkila (2009) regarding the benefits, underdeveloped farmers not managing their plantations correctly could benefit from the organic certification. The smallest farmers had little or no technology in their agriculture and no education and could benefit from higher productivity and income by converting to organic and learn how to improve the management of their farm. Valkila (2009) however explains that farmers are taught low productivity methods instead of high productivity methods that could be more favorable for farmers. The farmers in the study in Junín indicated the organic certification teach small-scale farmers methods that produce up to about a maximum of 20qq/ha instead of up to 60-80qq/ha that is achievable with modern methods.

Even though marginalized farmers receive higher prices through certifications they still produce very small amounts of coffee due to their small area of plantation and low productivity (Valkila, 2009). Organic farmers in Junín also explained the productivity was a large problem but also that the price they received wasn't much higher. Farmers in Junín have small plantations that further makes the yield smaller but have explained that it's totally possible to move to new virgin land and use it for planting coffee but that it also involves many costs to begin with a new farm. The problem of the low productivity in organic agriculture is further discussed by Tallroth (2010) to force farmers to clear more rainforest to increase their cultivated area as the harvest otherwise is so small.
6.3 In what way can small-scale coffee farmers in the region of Junín, Peru, benefit from organic coffee cultivation backed by certifications versus conventional coffee cultivation?

6.3.1 Sustainable development of organically certified farmers versus conventional farmers in Junín

The widespread ideas of what’s Sustainable development (SD) and how a firm is determined to work according to SD makes it impossible to prove if the organic certification is SD. Taking into account the social, economic and ecological factors is needed as explained by Elkington by following what he called the “triple bottom line” (TBL) (Docherty, 2009). Farrel and Hart (1998) also describe the view of competing objectives that focus on the balance between social, economic and ecological goals. The UNs definition of SD can be described as: meeting the needs of the present without compromising the ability of future generations to meet their own needs (42/187 Report of the World Commission on Environment and Development). According to the farmers in Junín the organic certification was unable to meet farmers present needs, the negative outcomes presented in Table 1 and the remaining unintended negative consequences the certification has for farmers maintain farmers poor. In Junín the situation for the
organic coffee farmers don’t even let them satisfy their own needs and therefore organic growing in that context could not even be regarded SD according to UNs definition.

Can conventional coffee farming be recognized as SD at any circumstances? Conventional farmers could still get social benefits as logistics by private firms and the security of having a firm or cooperative that buys the entire harvest plus the benefit of collective sales of coffee leading to more bargaining power. Conventional farmers in Junín that are associated to a cooperative or firm also show to have the ability to get pre-harvest payments. They also have access to equal loans from banks as the organic farmers. Apart of the benefits that the different actors on the coffee market offers and conventional farmers can take part of the modern agricultural technologies available can increase returns and the productivity significantly as shown in Table 2. The benefits connected to conventional coffee farming mentioned by farmers in interviews in Junín and Villa Rica are presented together with the trade offs necessary to make if choosing conventional farming before organic in Table 2. This makes for an easier comparison of however sustainability can be seen in conventional farming or not. The trade offs presented in Table 2 are benefits that organically certified farmers are offered that conventional farmers can’t use. The conventional farms can vary highly in the amount of technology used that will affect its productivity and profitability. In the case of Table 2 the benefits presented are associated with conventional farmers that have knowledge of and use artificial fertilizers and pesticides in between small and normal proportions. Conventional farmers in Junín that participated explained they used normal or limited amounts of artificial fertilizers, some meant that they also applied mixed fertilization, using both organic and artificial fertilizer. Farmers find it expensive with artificial fertilizers and also want to use it with responsibility to not exhaust their lands.
The benefits that can be gained by conventional farming in change of organic presented in Table 2 are many and significant for farmers in Junín what suggest farmers can benefit from a more favorable development by conventional farming than organic. From the interviews and empirical information it can be understood that it depends on the farmers current situation if the organic certification will benefit the coffee farmer or not.

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Trade offs</th>
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<tbody>
<tr>
<td>• Increased productivity</td>
<td>• Price premium</td>
</tr>
<tr>
<td>• Improved pest control</td>
<td>• Minimum price</td>
</tr>
<tr>
<td>• Less administrative costs</td>
<td>• Environmental spillovers</td>
</tr>
<tr>
<td>• Less labor needed</td>
<td>• biodiversity enrichment</td>
</tr>
<tr>
<td>• No demanding controls</td>
<td>• Toxic free, safer work environment</td>
</tr>
<tr>
<td>• Pre-harvest loans</td>
<td>• Only organic inputs</td>
</tr>
<tr>
<td>• Education in basic coffee farming from government</td>
<td>• Sanitary and health improvements</td>
</tr>
<tr>
<td>• Infrastructure improvements (benefits everyone)</td>
<td>• Cheaper inputs (organic fertilizer and pesticides)</td>
</tr>
<tr>
<td>• Personal management of the money farmers earn</td>
<td>• Organic cultivation techniques</td>
</tr>
<tr>
<td>• No investment needed to comply with rules</td>
<td>• No GMO exclusion guarantee</td>
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<tr>
<td>• No fee for being certified</td>
<td></td>
</tr>
<tr>
<td>• More ergonomic work</td>
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<tr>
<td>• A better salary in compensation for the work</td>
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<tr>
<td>• Less cultivated area is needed</td>
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<tr>
<td>• Less volumes of fertilizers and inputs that need transport</td>
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**Table 2 Benefits of conventional coffee farming and trade offs made from not choosing organic certification (Source: Own work, 2013)**

Conventional Farming
Coffee farmers showed to be in somewhat different situations and stages in the progress toward a better life that is the common goal that the farmers together are working towards. The organic certified farmers that should get some reward or benefit from working in a sustainable manner regarding the environment many times experience more problems than conventional growers. The organic certification seems to disturb the balance between the three aspects of social, economical and environmental sustainability as explained in 6.1.1. Greater emphasis on the economic gains has to be present to make it possible for farmers to benefit from organic cultivation. More economic gains could mean a sustainable development of farmers as they could then also comply with the norms of social responsibility and rules of cultivating organic coffee. The conventional farmers in Junín and Villa Rica have claimed to also take environmental responsibility, what makes conventional farmers comply with many different sustainability goals and benefit from a SD. As Byrch et al. (2009) explain there’s no official or common definition for SD what leaves it very unclear what can be considered SD. The conventional farmers in Junín can by the definition TBL by Elkington (Docherty, 2009) be considered to conduct a more SD than organic farmers in the same situation. Byrch et al. (2009) also explains the absence of a definition of SD makes it easy to greenwash products and practices by companies as they can make their own definition of SD. If the participating conventional farmers claims would be invalid and the statements would be an attempt to greenwash their practices and coffee the conventional coffee may be seen as unsustainable. However empirical findings as observations and video recordings demonstrated that conventional farmers take responsibility actions.

Conventional growers may be seen as having a more sustainable development as they actually many times do reforestation, take care of wastewaters and use chemicals with responsibility. Farmers have explained the responsibility actions they take in interviews, what also have been observed when visiting their farms. These farmers have a sustainable development of their social, environmental and economic resources. The conventional farmers explained its possible to manage more technified farms in sustainable manners by taking environmental responsibility. In the conventional farming it depends on the farmer how much emphasis he wants to put on environmental sustainability and the farmer can therefore maintain a better balance between his environmental, social and economic goals. In the case of organic farming the farmers only option is to accept the rules of the certification that forces farmers to focus on environmental sustainability. The objectives of underdeveloped and developed countries to reach environmental and economic goals are as Farrel and Hart (1998) explain different and the farmers in Peru require different things to improve quality of life than farmers in western countries. The different needs of farmers in Peru of improved materialistic living conditions and economic growth make conventional farming more suitable for them.
Picture 10 Me visiting a conventional farmer in San Ramón, here a conventional coffee plantation in a reforested area with pine trees that provides shade for the coffee plants among other benefits

It’s unknown if the conventional or organic growing would contribute more to the development of Peru measuring the Index of sustainable economic welfare (ISEW) developed by Daly and Cobb (1989). ISEW was created as an alternative measure of wellbeing and includes a more complete indicator set than GDP, measuring loss of natural capital, inequalities and household labor as well (Castañeda, 1999; Jackson & Marks, 2002). The impact on a measure like ISEW measuring the overall wellbeing of a country and its population could be positively affected by the environmental benefits of organic cultivation. The conventional cultivation however might have a greater positive impact on the ISEW from the increased income it brings and informal income from informal farmers. Organic farming as also explained require larger cultivated area and can for that reason also affect the ISEW negatively as cutting more forest to increase cultivated area contributes to losses in natural capital as the stock of trees decrease.

6.3.2 CSR projects and benefits to organic certified and conventional farmers in Junín

The CSR work connected to the organically certified farmers and conventional farmers described in 6.2.2 are as explained by Tuan (2011) ethical policies that are increasingly important for firms to include throughout the whole supply chain. Buyers of coffee contribute to farmers through offering for example organic certification and the services within the certification discussed earlier in the analysis. The difference in CSR
performed by companies, cooperatives and other organizations that benefit conventional farmers from the CSR that organic farmers can recognize can be understood by looking at Table 2. The trade offs in form of CSR benefits that farmers make if choosing conventional farming before organic farming shows there are CSR benefits that exclusively organic farmers receive. The customers demand organic coffee as it is seen as sustainable and something positive and regards certifying farmers as an ethical policy and a contribution to the society. The organic certification is seen by large MNEs that buy and sell coffee as a way of taking responsibility for the whole supply chain. Tuan (2011) explains how firms are increasingly adapting ethical policies and take responsibility in a wider perspective including more stakeholders and the whole supply chain in CSR efforts.

Conventional coffee farmers explained they prefer to sell their coffee to larger private firms more than selling on the street in town or to small local collectors. The larger private firms often give conventional farmers a little bit better price than local collectors and some CSR benefits but at the same time the larger private firms wants high quality coffee in exchange. The demand of high quality coffee from firms make farmers with lower quality coffee unable to benefit from CSR services provided by the firms as logistics etc. The local collectors don’t seem to make any CSR efforts as they don’t earn money enough themselves and don’t feel responsible for the situation of farmers, Tuan (2011) confirms firms exclude CSR in the absence of financial ability to invest in CSR.

Tuan (2011) also explains that many firms still exploit cheap labor markets and act unethically in developing countries. The participating farmers explained at various occasion that they felt exploited by everyone and they didn’t really know whom to blame. The organic farmers and conventional farmers explained their entire day consisted of heavy work and still they lived in poor conditions. As farmers report the organic certification give insufficient benefits as compensation for the hard work. Figure 2 shows the way cooperatives can earn profit from organic certification by collecting the price premiums and how they wont suffer from the negative sides of cultivating organic coffee. The cooperatives further see the organic coffee as more attractive, valuable and easier to trade something that the remaining intermediaries through the value chain of coffee also perceive. The incitement to certify farmers and continue to use the organic certification seems more to be the financial performance it means for exporting firms and cooperatives, importers, roasters and retailers that sell the end product to customers. Tuan (2011) explain firms many times see a correlation between taking social or environmental responsibility to comply with customers demands and financial performance. The profit of the organic certification seems to be allocated to everybody else but the farmer according to what farmers in Junín and Villa Rica revealed in interviews.

Farmers in Junín explain that the governmental support that on one hand is very limited but on the other hand still good support that is intended to help all farmers. The social
responsibility taken by the government was even if free for all farmers not sufficient to reach all farmers. Tuan (2011) explains that CSR is important for building loyalty and reputation, something that farmers in Peru ask the government to take more seriously. The participating farmers in the study explained they wanted more support from the government in form of more favorable loan conditions, infrastructure, help to export and promoting and marketing of the Peruvian coffee on the international market. The Farmers want the government to help justify the quality of the Peruvian coffee that farmers explain many times is as good as Colombian. The farmers explained that instead of the current support they got as organic certification etc. they want to develop and industrialize the coffee industry to be able to integrate forward and sell a product with added value. Farmers also explain how the government should prioritize the agricultural sector more and give them some privileges as for example tax relief. Farmers stated that other industries pollutes and damages the environment more than them and therefore should pay more taxes than them. The region of the central jungle of Peru where the farmers live is also very underdeveloped and has been neglected by the government, not receiving any benefits from tax money explained farmers.

6.3.3 Contextualized social entrepreneurship benefits to organically certified and conventional farmers in Junín
Farmers stay organically certified as organizations, cooperatives and firms gives false hopes and claims to farmers that the price of organic coffee will be better in the future. The incentive to certify farmers organic for cooperatives and firms that emerges in the context of developing countries that have been explained in 6.2.2 and by Figure 2. The false hopes and claims that convince farmers are presumable result of the financial incentive cooperatives and firms perceive. The farmers explained they’ve been told that the situation for organic coffee will be better and that they many times have been promised receive better prices in the future. The claims and false statements are another negative side that emerges from the way the certification is operated in the context and an unintended consequence resulting from implementing western standards. Schwarz (2012) also argues the implementation of misadjusted principles and procedures for the context can lead to negative outcomes.

The farmers that have come to the point where the organic certification isn’t improving or increasing their income any more are from observations and interviews shown to still be poor. The organically certified small-scale farmers are still living in conditions that are regarded unacceptable. However farmers continue to work as organically certified as they hope the cooperatives and their certifying bodies are correct in their forecasts about a brighter future. In the context the farmers are encountered in the living conditions that are seen as unacceptable from a western perspective are not rated as equally unacceptable. Different norms and values as Schwartz (2012) discusses makes western standards and labels inappropriate in the context of the developing country. Farmers recognize they are living in misery and express there’s no money to send the
kids to school or renovate their houses that often are in poor conditions. Farmers want to improve but the context makes it hard as farmers are locked in a position where adversities are many and the way to fortune is unimaginable. If farmers are to be helped to develop by CSR efforts and sustainability labels the associated benefits need to be adapted to be more effective in the context farmers are encountered in as Schwartz (2012) suggests.

The contextualized social entrepreneurship or CSR efforts that are undertaken in the region don’t help farmers significantly to be able to develop. Farmers that are very poor find it almost impossible to improve their living conditions by themselves. The benefits that exist for organically certified farmers were explained by many farmers to be insufficient, making farmers choose to sell conventional coffee on the street instead. The demand for only high quality coffee associated with the organic certification and firms make it more profitable for farmers in Junín to sell the coffee on the street with fewer concerns of defects and humidity of the harvest. Farmers explained it was more rentable as the price difference that was given for high quality coffee was too small for making it worth to sell that special selected coffee alone. Farmers explain the strict quality performance measures make them loose substantial weight of their coffee and involve more work, in difference farmers that sell conventional coffee benefits from selling a still dry but little bit more humid coffee. Conventional farmers can also sell larger part of
their harvest as its allowed to contain more defect beans and foreign material. While in the context of coffee farmers in Junín and Villa Rica conventional methods seem to be more profitable for farmers than the organic farming. The conventional methods is connected to higher net returns than organic methods having greater positive influence on the welfare in developing countries than reducing chemical inputs as explained in 6.1.1 and 6.1.4.

The contextual factors in developing countries are hard to grip and understand thoroughly by foreigners and make it very difficult to find methods and procedures to help support poor people that fit into the environment. As Schwartz (2012) explain the social entrepreneurs that tries to solve social or environmental problems tend to try to change the context as they believe the problem lies in the contextual factors. In Junín and Villa Rica farmers and cooperatives explained that a corrupt system, scandals and irregularities has made people in the region very suspicious. Many farmers in the region have no faith in the actors they encounter on the coffee market as the local collectors, cooperatives, private firms, roasters and distributors of fertilizers etc. The damage that the corruption cause on the coffee market together with the fact that farmers live in poor conditions makes it hard to cooperate and further increase the difficulty to help farmers. Some farmers, mostly older farmers were explained to refuse to listen to even the governmental support and CSR efforts from organizations in form of agricultural education in pruning, fertilization and planting of shade trees etc. Farmers were explained to not listen to and adapt improvements such as pruning as they didn’t have thrust in the people that taught them, farmers thought it would kill the plant to cut it off. These context factors slow down and make the market inefficient and involve the waste of resources. The coffee plantations could produce much more coffee while the costs for the education that some farmers wont absorb also gets unnecessary. Some farmers were also explained to refuse to adapt new agriculture methods because they were stubborn and believed that the methods used by them and earlier generations were the best. The farmers are stubborn from the mistrust, controls and a lost faith, that make the implementation of new norms and values occur as post-colonial coercive forces as Schwartz (2012) speaks about. The farmers that refuse to prune plants since they believe it’s a disadvantage belong to the poorer farmers that receive the basic agriculture education regardless of being organic certified or not. The agricultural education or capacitation is made as an effort by government and other organizations to develop the coffee industry of the country.

6.3.4 Organic versus conventional coffee productions benefits to farmers in Junín

The underdeveloped and small farmers using low intense, low productive traditional methods were explained to not have the ability to use artificial fertilizers or technified conventional methods in the lack of capital. The more efficient artificial fertilizers and pesticides are more expensive and limit the smallest farmers to benefit from and use those substances. Many of the smallest farmers however lack even the most basic
knowledge of pruning and fertilizing and management of the plantation. As explained the farmers can benefit from the organic farming in the beginning, the conventional farming with adequate management is however many times more efficient according to farmers. Masuda (2007), Barham and Weber (2012) and Valkila (2009) also confirms conventional farming is connected to higher net returns and more efficient in developing countries. Farmers explain how it in the beginning after starting to use artificial fertilization will be more expensive but that the larger yield later compensate for the costs and provide a higher profit.

The benefits from conventional farming in terms of revenues is explained in 6.1.1 and in terms of productivity its not uncommon the conventional farming produce 75qq/ha while organic coffee is explained to reach 30qq/ha if very well managed. For an underdeveloped farmer that produces between 4qq/ha and 15qq/ha the organic farming can mean a large increase in production. A plantation without adequate management producing 10qq/ha that increases production with organic management to 30qq/ha has increased production with 300%. If however the same farm would increase productivity to 75qq/ha it would mean a tremendous increase in yield of 750%. A higher yield does not necessarily mean higher net returns since it could just mean the use of more input that will produce higher costs (Barham & Weber, 2012). Farmers in Junín however confirms that the profit in their case is higher while investing in artificial fertilizer and other products, the costs are increased but not in the same magnitude as the productivity and revenues. The costs associated with a certain yield of certified and conventional farmers were hard to determine as they differed from farmer to farmer and what process, assets and amount of fertilizer they had access to. The climate and altitude also produced different results and further affected costs and amount of work needed. The retrieval of information regarding costs and profits was made difficult by the fact that many farmers took no records or did no financial accounting. The lack of accounting and ability to compare, take decisions and control using based on economic data also affects the farmers themselves. Farmers have a hard time evaluating whether organic or conventional farming is most profitable, many explain they don’t know and don’t know if they are making profit or not as they don’t take into account many costs. Many farmers make some accounting registers they call bitácora for their cooperative or firm they sell coffee to but can themselves not benefit from the accounting they are making from lack of knowledge. Farmers should learn to use the benefits that they can obtain from understanding the economy of their farm and the registers they are filling in.

Barham and Weber (2012) describe how the certifications aren’t useful and sufficient to improve small-scale producers living standards significantly as also shown in this study. As Valkila (2009) argues the certifications can generally only raise the income of the farmers that have very limited management of their plantation. This also raises questions regarding the goal of the organic certification as larger farms and plantations now see no incentive in growing organic coffee and the area of organically certified
cultivations will decrease. Certifying smaller farmers with small farms and little land is also important as many of the farmers are small-scale producers but the larger farmers are at least as important. Large farmers representing large plantations that can make more significant positive impact on the environment in Junín and Villa Rica explained they don’t get motivated to grow organic.

Participating larger conventional farmers however adopted some organic principles as explained in 6.3.1 and strived to work sustainable. Some conventional farmers reported the use of a combination of organic and inorganic fertilization to add organic material to the soil. Bilalis, Efthimiadou, Karkanis and Williams (2010) explained organic and inorganic fertilization gave significant results in the cultivation of sweet maize and that it enriched the soil quality and increased photosynthesis, yield and sustainability. The conventional farmers benefit from the organic methods they’ve adopted by working in a cleaner and more hygienic environment and improve their sustainability from cleaning wastewater and using a mixed fertilization. The conventional farmers using the mixed fertilization explained they benefitted from adding organic material by enriching the soil and preventing the washing of the soil by rains. Conventional coffee farmers seem to see the same benefits from organic fertilization as Bilalis et al. (2010) explained they found in sweet maize except the photosynthesis increase that remains unknown in the case of coffee. Masuda (2007) also explained the use of organic fertilizers together with
artificial fertilizers in conventional farms benefit the welfare of the community as a whole. Farmers add organic material in form of fertilizer but also the cut down weeds in the plantation and leaves from the shade trees that both conventional and organic farmers commonly use. The farmers usually have other crops as bananas, pacay, pineapple and avocados together with the coffee as shade trees for the coffee but also to add organic material and nitrogen to the soil. The farmers also stressed the need to be diversified and cultivate some other type of crop or have some other business apart of the coffee in times of lost harvests or drastic price falls of coffee, especially for organic farmers that are more susceptible fore pests. Farmers meant that diversification could help to sustain the family during the year as the coffee also only was harvested once every year while other fruits could be harvested more continuously.
7 Conclusion

This chapter answers to the purpose of this study and try to provide relevant recommendations and solutions for the coffee farmers.

7.1 Discussion

The purpose of this study was to get an understanding of if organic farming is either an adequate solution for sustainable development of small-scale coffee farmers in developing countries or not. The study searched to explain the farmers’, cooperatives and organizations point of view of organic certification and its effect upon the farmers that chose to work with organic certification. Based on the farmers’ voices the study highlights the opinions and experiences of the farmers themselves. By being able to come close to the subject and listen, observe and experience the reality of organic farmers a deep understanding of how organic farming affects the Peruvian coffee farmers has been achieved.

By answering to the research questions of the study various different indications of that organic certification can affect the development of farmers negatively was found. Farmers perceived the organic certification to be beneficial for the most underdeveloped farmers that lack any education and used very low-intense agricultural methods but for other farmers the common understanding is that it’s unprofitable. The small-scale farmers that participated in the study showed to be developed to different states, some very underdeveloped and poor while others had somewhat better living conditions and economy. From understanding the farmers’ perception it could be concluded that the organic certification don’t relate to the farmers own needs and the development of farmers therefore becomes disturbed. A misbalance between the social, economic and environmental goals of the certification prevents it from being sustainable for small-scale farmers. Small-scale farmers see the largest problem for them to be economical and explain that they need financial support or help to get a better income through a better job or product. Small-scale farmers are prepared to do everything to get a better price and a better income and explain they would grow organic if it would be favorable. The fact that farmers perceived organic farming to have lower net returns than conventional farming, makes farmers see more benefits in conventional farming, what also the theoretical framework confirms.

The contextual factors gave rise to certain problems with the organic certification. As the poor farmers actually prefer to prioritize and benefit more from higher net returns than environmental sustainability the interest of the certification comes in conflict with the farmers. The price-premiums intended to recompense for the lower productivity and extra work organic farmers perform are too small today to make farmers see an incentive to grow organic coffee. The farmers see many positive sides in the organic certification as explained in 6.2.1 as well as negative sides, the negative sides were
however explained by farmers to be outweighing the positive effects. Many participating farmers in the study had changed from organic farming to conventional as the organic farming turned out to be unprofitable. However as farmers are poor and many in the region lack education, abilities to read and write and the ability to make evaluation many farmers don't see the reality of the certification while applying at first. Farmers that had benefitted from learning the organic methods and receiving a small price-premium soon got to a level of development where they couldn't develop or improve more with organic management. Farmers that reached the highest efficiency of organic management were still having low income and were still poor. Farmers that had been certified for years still explained they didn't perceive that they got richer or wealthier in economic terms.

The context has also shown to making both farmers as producers and the cooperatives or roasters as buyers suspicious and mistrusting. Irregularities that happened in the past has made the certifications to use extensive controls whilst the farmers also get afraid of working together with cooperatives and firms as farmers have been cheated in earlier scandals. The irregularities that occurs are many times based on how the certification is managed in the context the farmers live in and the misconduct of a few have affected everyone that now need to take further actions.

From the management of the certification in the context where cooperatives and firms are the ones actually receiving the price-premiums at first a paradox emerges.
**The organic certification paradox**

While the certification is managed within the context of farmers in Junín and Villa Rica the certified entities are the cooperatives or firms that buys the coffee from the farmers and not the farmers. The organic farmers are associated members of cooperatives or firms that pay them for their harvest and receive only part of price premiums and the market price as explained by Figure 2. The cooperatives recognize the current low prices for organic coffee are a problem for their member farmers. The cooperatives or firms that sell the organic coffee on the international market aren't however affected by the same problems organic farming implies for farmers. The cooperatives and firms seem to believe the organic farming still is positive and a sustainable way of development of the production chain even if the price is low and therefore continue to promote it.

On the level of cooperatives and firms the strategy is to convert more and more coffee into organically produced and promote the organic coffee production. Peru has become one of the world leading countries in producing organic coffee after much efforts to develop the countries coffee industry. From the government, cooperatives and firms side organic farming is still seen as a sustainable way of development and efforts to teach organic farming continues.

The cooperatives and firms that practically buy the organic coffee from farmers to sell it to the next intermediary don’t suffer from the increased amount of work and lower productivity that organic farmers encounter. Instead the cooperatives and firms see an economic incentive in selling organic coffee, as the price for the organic coffee is higher on the stock market while they also receive price premiums. The way the organic certification works and is managed makes it an incentive for cooperatives and firms to certify members and buy and sell certified coffee. The cooperatives explained they always are in search for better solutions to increase the living standards of farmer members but for now try to do so using mostly organic and FairTrade certification. The organic certification opposes itself, at the same time farmers are experiencing the organic certification has disadvantages for them the cooperatives and firms are trying to recruit more organic farmers. The cooperatives explained they worked on profit-based logic since they correlate increased profit of the cooperative with more and better improvements for farmer members. Cooperatives continue to teach farmers low productive agricultural methods instead of available high productive agricultural methods with higher net returns that poor farmers in the present context are more dependent of.
While comparing the choice of growing conventional coffee instead with the organic farming in Junín Peru similar findings as the theories supporting that higher net returns are related to conventional farming was found. The organic farming was beneficial to some farmers but the conventional farming was explained to be even better for the farmers in the case of this study. The organic certification showed to be an option to increase the income for the underdeveloped farmers that for some reason are unable to develop through using more intense farming methods. Farmers that were unable to use conventional methods but had the knowledge of the possibility to increase net returns through investing more in artificial fertilizers expressed they wanted the support from government with capital. Farmers explained they wanted benefits as better loan conditions and access to credit to invest and improve the technology on their farms. The farmers in Junín and Villa Rica also meant the government should give more importance to the agricultural sector and give benefits as tax reliefs. Other industries should pay more tax as they pollutes more according to farmers that claimed they do less damage on the environment. Farmers in the region explained the region had been neglected by the government and not received any improvements from tax money and want the government to prioritize the agricultural sector and the rural areas where the coffee is produced. The farmers want to integrate forward rather than continuing to cultivate organic coffee and sell green coffee without any marginal. The farmers mean that the support matching their own needs would help them to industrialize the industry and stop selling just raw material. The majority of organic farmers in the world are located in developing countries but studies’ including this one shows organic production is inappropriate in developing countries.

The real effects on the environment of the organic certification are unclear; to keep the productivity of newly established plantations heavy fertilization with organic fertilizer is needed. The large amount of fertilizer makes it necessary for more transports that increase pollution. The farmers reported to have a dramatically decreased productivity when cultivating organic and therefore also more farmland is needed to produce the same amount of coffee. In a surrealistic example of all coffee cultivation turning into organic shortages in supply would be experienced and sky-high prices or a dramatic increase of the total farmland area dedicated to coffee would be needed. The fact that coffee is grown in the region of the worlds rainforests increase the negative impact of the increased area of farmland needed as result of low yields. The lower yielding methods are not suitable for developing countries as productivity is needed and if not achieved a need to clear more rainforest to increase the cultivated area rises. It was confirmed by coffee farmers in Junín that farmers were expanding their coffee plantations when cultivating organic coffee. Farmers also meant many farmers that grow organic coffee clear new lands just to move the plantation to another spot as the soil gets unfertile in the current plantation when farmers don’t succeed to add enough organic fertilizer or don’t uses any fertilization.
Farmers in Junín, Peru, benefit marginally in social development, as the organic farming in the end is too inefficient. For social sustainability to be achievable in the farmers’ case a reasonable income is also necessary to establish social acceptable working conditions. Organic farmers cannot afford social sustainable development on their farm and for their workers as long as the economic sustainability can’t be achieved. It becomes very hard for a coffee farmer without money to try to live a social acceptable life and also give reasonable wages to workers. The economic sustainability is not achieved, as the social and environmental sustainability isn’t possible to finance by the economy of the organic coffee farmer. In change conventional farmers have explained they use organic fertilizers in combination with artificial fertilizers while treating wastewater and recycle other waste, working in sustainable ways while also achieving better economic sustainability. Conventional farmers also showed to do reforestation and strived to keep the rivers and environment clean. Conventional farmers showed to be able to earn a better income and could therefore afford financing social and environmental sustainability, something that organic farmers were unable to do.

Farmers explained they would dedicate themselves to organic cultivation if the price for organic coffee only would be better but as of now the price is far from sufficient to be an incentive to grow organic coffee. As explained in 6.3.4 the yield could increase by about 300% if using adequate organic methods while it could increase up to 750% or more using conventional methods. The conventional high intense methods also easily yields the double amount of coffee as organic methods while the price farmers receive for their organic coffee only was reported by farmers to be 7,1% higher than the price for conventional coffee. The price for organic coffee need to be almost 100% higher than the price for conventional coffee to make it attractive to change to organic cultivation for conventional farmers that produce more than double the amount that organic farmers produces.

The price has gone down as the supply of coffee has increased dramatically during the latest years when Brazil and Vietnam has augmented its exports of coffee significantly. The study don’t find any indications of that the price increase that cooperatives talk about to farmers seem to be anything farmers will experience soon if not the supply of coffee decreases or is held constant while the demand grows.

Farmers have mentioned many benefits that they would like to change for the current benefits that they get. Farmers want support to market their product internationally and find new buyers while being able to export without getting discriminated by import tariffs working against them.

The fixed and semi fixed costs of establishing and renovating new plantations make it hard for farmers to plan for future production what also causes the stock price of coffee to fluctuate widely. At years with low supply of coffee on the world market farmers gets
incentivized to increase production but all new volumes from farmers entering the market results in oversupply causing the price of coffee to fall again.

The organic certification benefit other companies, intermediaries and distributors in the value chain of coffee more than the farmers. The certification seems to be more of a marketing advantage for coffee wearing the organic label than a label for sustainability. Coffee that wears the label can be sold for higher prices than conventional coffee and has advantages as being marketed as an ethical product for whomever that trades it. The organically cultivated coffee also benefits the environment and the consumers but is unattractive to farmers. If the aim is to increase the environmental sustainability and the organic farmland the certification need to be adapted to fit the needs of the farmers and provide a better income. The only farmers that benefit at the moment from the certification showed to be the most underdeveloped farmers. The organic certification should also attract larger farmers to be effective in increasing organic farmland and making a greater change, focusing more on the needs of farmers. In this case the best alternative maybe isn’t a hundred percent organic production but perhaps a solution that also permits some of the necessary inputs to increase productivity.

Technological agricultural advancements that have been used in the industrialized countries to help their economies grow should be available for the developing countries now that they are in need of it for their development. Perhaps the liability of taking environmentally responsibility should lie on those who can best carry it, or on those who are most responsible. Now the majority of organic farmers are situated in developing countries.

7.2 Conclusion
This study shows that organic farming isn’t an adequate solution for SD of small-scale coffee farmers in developing countries. Small-scale farmers are however the only farmers that can benefit from organic certification by any means and get certain development what could however not be regarded as SD as it only lasted for a short period of time. The larger and more developed the farmer is, the less he will be able to benefit from organic certification according to cooperatives, farmers and organizations points of view.

The organic certification is made to emphasize the environment but to reach environmental goals in the coffee industry the certification need to attract and convert farmers to organic cultivation, also offering economic and social sustainability. Poor farmers pay an annual fee to be organically certified and receive low productivity and increased risk of being afflicted by plague and pests, what makes the idea to certify absurd to many farmers.
The farmers are after becoming organic not getting sufficient revenues to cover their production costs in the coffee cultivation plus household expenses. Therefore the farmer needs to either get a higher price, further increased productivity or lower costs to continue to progress and increase his living standards. As price or costs are hard to change the only choice at this point is to change for conventional farming where modern agriculture technologies that are prohibited by the organic certification can be used to increase productivity. From this perspective there can be no recognition of sustainable development of small-scale farmers from organic certification in the long term. Farmers see conventional farming as an alternative solution that can be more profitable than organic farming, what is a negative effect that the current circumstances surrounding the organic certification gives birth to. The conventional farming could however be explained to be more beneficial to the total welfare than organic farming in the context as net returns have a greater positive impact on the welfare in developing countries. Farmers also showed to be able to act responsibly without being organically certified and use products less dangerous and follow guidelines, striving to not deteriorate the soil or hurt the environment. If given the right education and capacitation farmers could act responsibly and use moderate amounts of harmful substances and artificial fertilizer to be more environmental friendly. This would be true since farmers are the ones loosing from using too much chemical fertilizer or deteriorate the environment they live in, what’s making the soil they plant in exhausted and unusable and contaminates their water sources and affects their health negatively.

One concern with conventional farming is however that if farmers begin to be more productive and produce much more coffee from increased productivity that add to the supply side of coffee will cause the price of coffee to fall even more. Indications from the high supply are for farmers to exit the market and change to another type of business if they can’t keep up with the competition from more cost efficient producers. The coffee industries that pose the greatest threat and competition and cause small-scale farmers to loose their jobs are Brazil and Vietnam. Those markets are characterized by having very high productivity and low costs, using machines to work much more efficiently than Peruvian farmers. In Peru the crop is grown on steep hillsides between trees and other vegetation and need to be handpicked. Much of the Peruvian coffee is however high quality since it grows like the Colombian coffee at high altitudes and under shade. Farmers in Peru therefore want to be differentiated and promote their product and be able to get a better price for their quality. New labels as the “Q” certification farmers mentioned have start to develop, emphasizing specialty coffees that have high quality and higher price that is traded in a market separated from conventional coffee what could be a future opportunity for the farmers. Farmers could by focusing on improving quality and distinguish themselves earn more economic profits. The problem that farmers see is still that they only are selling the green beans and the raw material that foreign roasting companies use to produce roasted coffee for their national coffee brands. Farmers want to integrate forward to add value to the product and sell roasted coffee to receive a better price. Integration however implies expensive investments that
farmers can't afford themselves. Even if having the roasted coffee the farmers still have hard times to sell their coffee as the national market isn't consuming any coffee and the ability to export already roasted coffee to the consuming markets with most demand in Europe and US is limited. National coffee brands in consuming countries are protected and favored by lower import tariffs on green coffee. High import tariffs on roasted coffee compared to the green coffee make it unattractive for buyers in consumption countries to buy already roasted coffee from abroad.

Underdeveloped farmers see no way out of their misery and every opportunity they try to improve seem to be limited and the ability to develop and grow is held back. Farmers see no other option than work hard and try to make a living out of what they have. Farmers explain that by diversifying they can at least decrease the risk that they run all through the year of having a bad harvest and receive some other more continuous income. Some farmers also showed to had been successful in growing and developing through diversifying, however for that some capital was necessary explained farmers, something that few farmers have. For organic farmers to be able to make some profit the demand for organic coffee has to rise while also the management of price premiums has to be redesigned to prevent the misuse of the premiums.

Much research has been made on the subject of certifications for coffee and on coffee farming in developing countries and many problems have been observed, still the farmers continue to struggle to make their living. The change that farmers are in need of may be constitutional changes in the trade of coffee and better trade agreements and decreased tariffs etc. Findings however show that many problems also occur by the conditions in the local environment where farmers find insecurity and corruption and suppression from their government and the capitalistic part of the country. Farmers explain how the government has prioritized developing the coastal town and the capital that is rich and developed exceptionally and that the rural regions as where they live are neglected. The solution for a long-term sustainability for coffee farmers is something of western concerns that is seen as needed by consumers as we strive for SD in developed and industrialized countries. Farmers however need any kind of development that improves their economy and economic growth in the region that create jobs and improves educational level. SD of farmers in the present situation may be demanding too much but SD is still a goal to strive to achieve as farmers economic situation improves. SD may be something that industrialized countries have to emphasize more in their own countries at the moment while helping farmer to initially get better living conditions. As problems on international level by import tariffs and limited access to new markets and problems connected to the local context for farmers in general exists actions are needed to improve both those two factors. Improving the ability of farmers to trade internationally and decreasing the corruption and suppression could improve the conditions for all farmers. The organic farmers do however need a higher price more than anything but the enrollment of new organic farmers increases the supply of organic coffee, thus should decrease its price and the significance of the price premiums further.
8 Recommendations

This chapter presents some recommendations for future research that could be interesting and connected to the problem discussed in this study.

To establish more knowledge on the subject of how to improve the future environmental sustainability more information is needed of how farmers could be profitable from organic growing. If conventional farming is unsustainable in environmental terms a new sustainability label that prevents only the most toxic substances or likewise maybe needed. It would be interesting to find more information on what other alternatives that farmers have to organic farming and more specifically how the import and export tariffs affect farmers today. The tariffs are presumable different in different countries and a good analysis of positive and possible emerging markets for to which coffee farmers can export would be helpful for farmers and cooperatives that are searching for new buyers.

Participants in the study mentioned the interest in however the farmers are negatively affected by the fact of the separation of Fairtrade International (FLO) and Fair Trade USA (FTUSA) in the beginning of 2012. Central Café y Cacao explained how FTUSA had left FLO to start to also certificate large private firms and large plantations, something that Central Café y Cacao are worried that it will make small organized farmers unable to compete while also loosing their benefits. Research has to be made on the subject to be able to tell the outcomes of the separation of FairTrade.

The problems that the contextual factors mean to farmers when the organic certification and price premiums is managed by cooperatives needs to be more deeply evaluated and the way that cooperatives show their transparency to farmers. It would be interesting to see how cooperatives and members make the decisions on investments and how the cooperative presents the financial records for members. Future studies could favorably focus on how to get more direct support to a greater amount of farmers that fits the needs of the farmers. Now the existing labels for coffee are controlled by firms or cooperatives that makes it doubtful of how much of for price premiums that apply to farmers in form of higher price for their product and the value of the capacitation, training, processing facilities etc.

The costs of organic farming was hard to extract in this qualitative study and is also something that could be interesting evidence to prove organic certification make farmers lose income. An extensive quantitative study like survey or similar would give more reliable measures of how much the exact costs are but the current problem that farmers don’t even account for costs makes it difficult. Research therefore has to be made to evaluate how many hours per day is invested by the farmer himself and how much the average wage per hour reasonably would be to evaluate if the organic farmers even cover their costs. The lack of cost control farmers have make them unable to take appropriate decisions, a study to evaluate farmers opportunity costs, fixed costs and

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variable costs to better evaluate performance would benefit farmers. Many farmers that are using some kind of records to present for cooperatives or firms are as of now unknown of how to use the information to their advantage and would benefit from basic education in business administration and economics.

Future research favorably would determine guidelines for the commercialization of intensely traded commodities as coffee that are produced in developing countries other than the price manipulative certification schemes. Sustainable development is a
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## Appendices

### Exhibit 1 – List of Interviews

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Exhibit 2 – Interview to Coffee Farmers

Questions:

1.
What is your name?
What is your age?
How big is your piece of land? (Cultivated land and not cultivated land)
What varieties of coffee strains do you use in your plantations?
What certifications do you work with or does your coffee have?

2.
From where did you get the idea to start working with certifications? Did You search for solutions to be more profitable or did an organization, authorities, NGO’s or other person come to visit you to tell about the topic?

3.
What’s your experience from different Seals and certifications? For example about the norms and requirements they force upon its members etc.

4.
Do you think that from working with the coffee certifications your profitability and revenues have increased or decreased? What was your profit before being certified? What’s your profit now?

5.
Do you think your total costs that you had before starting to work with certifications decreased or increased after becoming a certified farmer? To what extent?

6.
Do you have any new costs now after converting to certified agriculture that were not present when not working with certifications?

7.
Do you think that any of your costs that you had before becoming certified have disappeared after becoming certified?

8.
Do you consider that the administrative work have increased or decreased after getting certified?
-What type of administrative work?

9.
Have the manual labor increased or decreased after getting certified?

10.
How did your life situation look before becoming certified and how does it look now after becoming certified? For example household economy, level of education of family members, health, living conditions etc.
11. Have becoming certified solved some of your problems or have it made some new problems for you?

12. Do you feel satisfied with your decision to become certified or do you regret taking that decision?

13. What does sustainable development mean to you? (not for participants: UN: Meeting the needs of the present without compromising the ability of future generations to meet their own needs)

14. Do you think there’s other ways of sustainable development apart of cultivating organic coffee? (some way of cleaning the soil you have used, interchange between field to cultivate on)

15. Can you think of other ways that can make your economic condition better apart of being certified, like support from the government? For example: (better infrastructure, laws, rules, reforms, lower taxes etc.)

16. How much is the productivity when using artificial fertilizers and pesticides versus the productivity when you are managing an organic cultivation? Quintals/hectare

17. What were your possibilities to get access to credit before being certified?

18. Do you have possibilities to get access to credit from the certifications? How? Bank or other credit?

19. Does working in the cooperative give you access to credit? How? Bank or other credit?

20. If you have access to credit, under what circumstances and requisites? Amount? Interest?

21. Which were your customers/clients before being certified?

22. Have the certifications given you access to new markets or business?
23. Have working in the cooperative given you access to new markets or business? (markets where they pay a higher price for your product like larger cities (Lima) or other foreign markets)

24. Have your productivity changed after becoming certified? Has it increased or decreased? How much?

25. What do you consider best for yourself? High productivity with a larger amount of product to sell or a production of less quantity but with a better price for your product?

26. Do you believe that you can achieve a high productivity by using traditional and organic practices with organic fertilizers and organic pesticides?

27. Do you take into account your economic data? How? For example: Do you count your revenues and costs? Do you write them down? Do you make a difference between revenues and costs according to their nature (cost of goods sold, operational costs, financial costs, financial revenues etc.)

28. Do you master accounting (basic, intermediate)? Have you got any capacitation in accounting?

29. How do you make your accounting?

30. Do you take into account depreciation and amortization?

31. Do you make income statements?

32. Do you take into account: Non-current Assets, Current Assets, Capital and Liabilities, and do you know how to make difference between them?

33. Do you make a Balance sheet?

34. Do you count your “return on investment”? Comparing the return from different projects to make a decision?

35. Do you make any type of marketing for your product? If you do, how? How do you find
your customers?

36. Do you train your employees? What type of training? Do you give them incentives so they do a better job? What type of motivation do you use? Do you have leaders in your workforce during intensive working seasons?

37. Are your leaders trained to perform better?

38. Do you work exclusively with coffee or are you diversified, meaning you do other business apart of coffee?

39. If diversified, for what reason? Is there a special reason? (decrease/disperse the risk, have a more continuous income, other?)

40. If not diversified. Do you use another strategy to be more competitive or protect yourself against a year with low harvest or sudden/surprising changes in the price of coffee?

41. What type of investment could help you best? For example in infrastructure like artificial watering systems, roads for transporting goods, electricity, warehouses, processing plants for coffee etc. Or capacitation and new agricultural technology like education in how to prune, plant, harvest, fertilize etc. o new machinery, tools, more terrain, new coffee plants or new types of modified coffee plants?

42. Would you say that some existing laws and rules prevent you from being more profitable? High taxes, complex exporting process, need for licenses, proof of ownership (to have the courage to invest without losing everything) etc.

43. Are there any other positive or negative consequences of being certified that has not been asked earlier in the interview?

44. Do you consider it important and favorable for you that studies on certifications and the coffee market are realized? Are you interested in searching for other alternative ways of development to be more profitable?

45. Do you have any ideas or opinions on how certifications and their requisites could be better or different to be more favorable for you?
Exhibit 3 – Entrevista para agricultores

Preguntas:

1. Cual es su Nombre?
   Su edad?
   Tamano de terreno (cultivado y no cultivado)?
   Variedades de café utilizados en plantacion?
   Certificaciones que tienen?

2. De donde han sacado la idea de volverse certificado? Ustedes mismos buscaron soluciones para mejorar su rentabilidad o un organacion los ha buscado y contado sobre la tema?

3. Cual es su experiencia con el sistema de sellos y certificaciones de su café? Por ejemplo: normas, requisitios nuevos etc.

4. Piensa ustedes que al trabajar con los sitemas de certificacion del cafe su rentabilidad e ingresos aumentó o disminuido? Cual era su rentabilidad (ganancia) antes de ser certificado? Cual es su rentabilidad(ganancia) ahora?

5. Los costos totales que tuvieron antes de empezar a trabajar con la certificacion han aumentado o han disminuido? En que cantidad?

6. Se han presentado nuevos costos al empezar a trabajar con la certificacion de su cafe?

7. Piensa usted que algunos costos que estaban presentes antes de trabajar con la certificacion han desaparecido?.

8. Considera usted que el trabajo administrativo ha aumentado o disminuido al ser certificado?
   - Que trabajo administrativo ha aumentado/disminuido?

9. La mano de obra ha aumentado o disminuido al ser certificado?

10. Como miraba su situacion de vida antes de ser certificado y como lo ve ahora al ser
certificado? Por ejemplo su economía en casa, el nivel de educación, Salud, Condiciones de vida etc.

11. Al ser certificado se ha solucionado algún tipo de problema? o Han parecido nuevos problemas relacionados al ser ahora certificado?

12. Se siente satisfecho con la decisión de haberse vuelto certificado o se arrepienten?

13. Que significa desarrollo sostenible para usted? La definición de ONU es: “Satisfacer las necesidades del presente sin comprometer la capacidad de las generaciones futuras para satisfacer sus propias necesidades.”

"Tres Pilares"
Sostenibilidad económica: se da cuando la actividad que se mueve hacia la sostenibilidad ambiental y social es financieramente posible y rentable.
Sostenibilidad social: basada en el mantenimiento de la cohesión social y de su habilidad para trabajar en la persecución de objetivos comunes. Supondría, tomando el ejemplo de una empresa, tener en cuenta las consecuencias sociales de la actividad de la misma en todos los niveles: los trabajadores (condiciones de trabajo, nivel salarial, etc.), los proveedores, los clientes, las comunidades locales y la sociedad en general.
Sostenibilidad ambiental: compatibilidad entre la actividad considerada y la preservación de la biodiversidad y de los ecosistemas, evitando la degradación de las funciones fuente y sumidero. Incluye un análisis de los impactos derivados de la actividad considerada en términos de flujos, consumo de recursos difícil o lentamente renovables, así como en términos de generación de residuos y emisiones. Este último pilar es necesario para que los otros dos sean estables.

14. Creen que podrían haber otras maneras de desarrollo sostenible aparte del cultivo orgánico del café (alguna forma de limpiar la tierra nuevamente, alternar hectáreas de cultivo).

15. Cree usted en otras maneras de mejorar su condición económica, aparte de ser solo certificado, como con el apoyo del gobierno por ejemplo? (mejor infraestructura, leyes, reglamentos, reformas, bajar impuestos etc.)

16. Cuánta es la productividad cuando se usa fertilizantes artificial y pesticidas, y cuánta es la productividad cuando se hace de una manera orgánica? QQ por hectárea.

17. Cuáles eran sus posibilidades de acceso a crédito antes de ser certificado?
Cuenta con posibilidades de acceso a crédito con las certificaciones? Como? Bancario u otro crédito?

19. 
Tienen posibilidades de acceso a crédito al trabajar en la cooperativa? Como? Bancario o otro crédito?

20. 
Si tienen posibilidad de crédito bajo que condiciones o requisitos? Monto? Interés?

21. 
Cuáles eran sus clientes antes de ser certificado?

22. 
Han dado posibilidades de acceso a nuevos mercados/negocios las certificaciones? (Mercados donde pagan un mejor precio por su producto como ciudades mas grandes (Lima) o mercados en el extranjero)

23. 
Has tenido posibilidades de acceso a nuevos mercados/negocios al trabajar con la cooperativa? (Mercados donde pagan un mejor precio por su producto como ciudades mas grandes (Lima) o mercados en el extranjero)

24. 
Su productividad se ha cambiado por ser certificado? Ha aumentado/disminuido? Cuanto?

25. 
Que considera mejor usted? Una productividad alta con más cantidad para vender o una producción de menos cantidad pero con un mejor precio para el producto?

26. 
Piensa que podría llegar a una alta producción usando métodos orgánicos y tradicionales con fertilizantes y pesticidas orgánicos?

27. 
Toman registros de los datos económicos? Como? Por ejemplo: Cuentan sus ingresos y costos? Apuntan sus ingresos y costos? Se toman en cuenta la diferencia entre diferentes costos e ingresos (costos de ventas, gastos de operaciones, gastos financieros, productos financieros etc.)?

28. 
Saben contabilidad (Básico, intermedio)? Han tenido o tienen algún tipo de capacitación en contabilidad?

29. 
Como llevan su contabilidad?

30.
Toman en cuenta la depreciación y amortización?

31. Hacen un "Estado de resultados"?

32. Toman en cuenta que es, Activo no corriente, Activo corriente, Patrimonio neto y Pasivo y hacen diferencia entre ellos?

33. Hacen un "Balance"?

34. Cuentan el retorno de sus inversiones? Compran los beneficios/retorno de proyectos para tomar una decisión?

35. Hacen algún tipo de marketing para su producto? Si lo hacen, como lo hacen? Como encuentran a sus clientes?

36. Capacita empleados? Que tipo de capacitacion? Dan incentivos para que hagan un mejor trabajo? Que tipo de motivacion usan en sus empleados? Tienen liderazgo entre sus empleados en épocas de trabajo?

37. Los liderazgo son capacitados para tener un mejor desempeño?

38. Trabaja usted únicamente con café o están diversificados, osea hacen otros negocios aparte de cultivar café?

39. Si son diversificados, por que? Con algún razón específica (disminuir/dispersar el riesgo, tener un ingreso más continuo, otro?)

40. Si no, usan otra estrategia para ser más competitivos o preteger contra un año de mala y baja cosecha y grandes cambios eventuales e inesperados en el precio de café?

41. Que tipo de inversiones lo podrían ayudar a mejorar? Por ejemplo en infraestructura como para sistemas de riego artificial, carreteras para transportación, electricidad, almacenados, plantas para procesar café etc. o capacitaciones y nueva tecnología agrícola. Por ejemplo como Podar, sembrar, plantar, cosechar, abonar etc. o nueva maquinaria, herramientas, más terreno, nuevas plantas de café, nuevos tipos de café modificados?

42. Opina usted que existen leyes y reglas que impiden una mejor rentabilidad, impuestos
altos, un sistema complejo para exportar, licencias necesarios, pruebas de propiedad (para tener valor de invertir sin perder todo) etc.

43. Hay otras consecuencias positivos/negativos siendo certificado que no se le ha preguntado anteriormente en la entrevista?

44. Consideran importante o favorable a ustedes que se realizan estudios sobre como sirven los certificados y el mercado de café de la actualidad? Están interesados en buscar maneras alternativas de desarrollo para ser más rentable y poder tener mejor rentabilidad?

45. Tienen ideas/opiniones sobre como los certificaciones y sus requisitos pueden ser mejores o diferentes para ser más favorable para usted?